



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

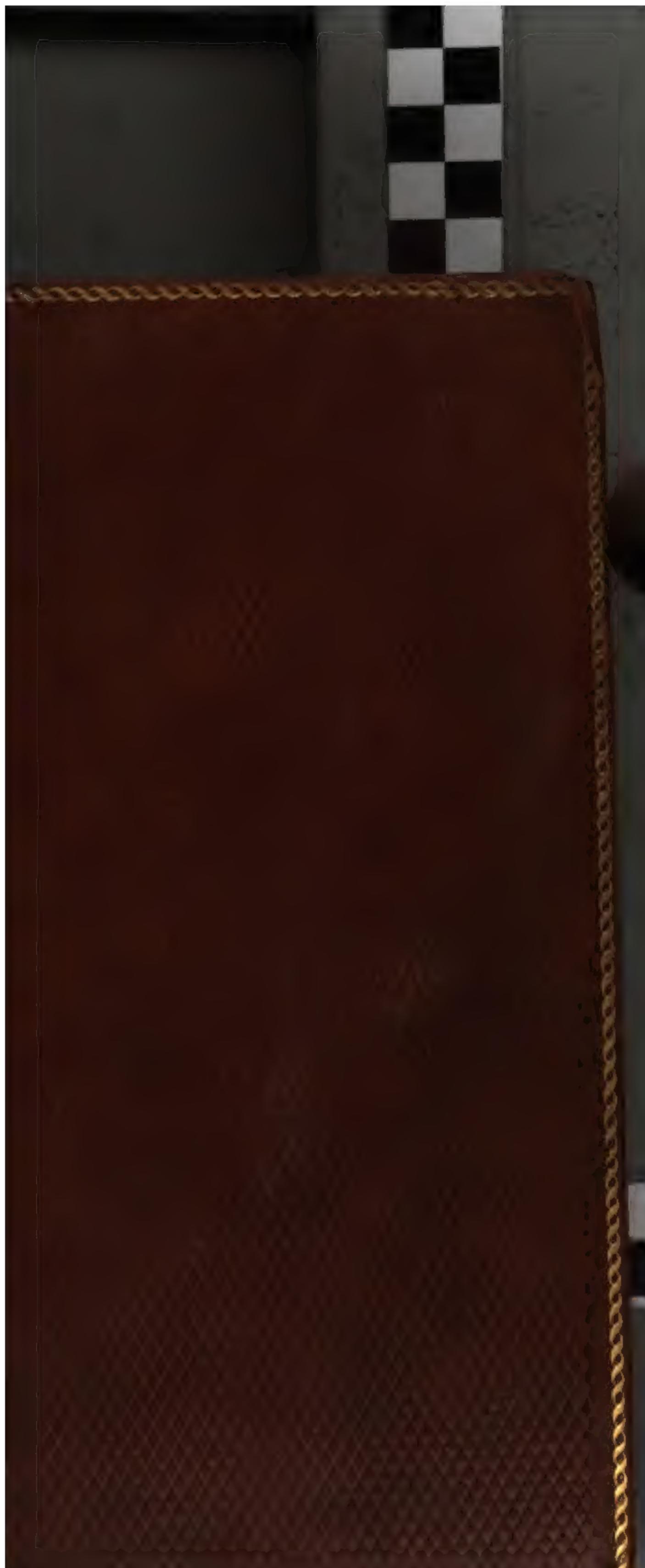
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

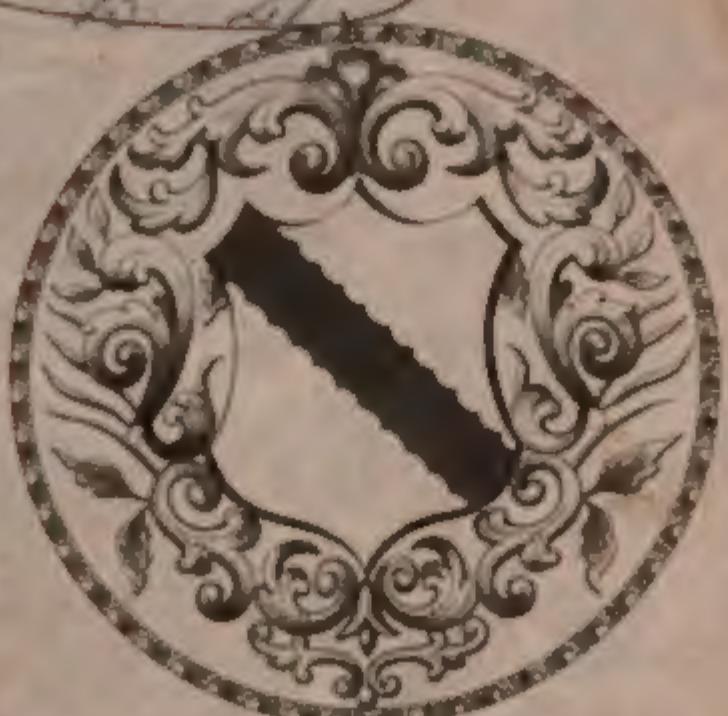
We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

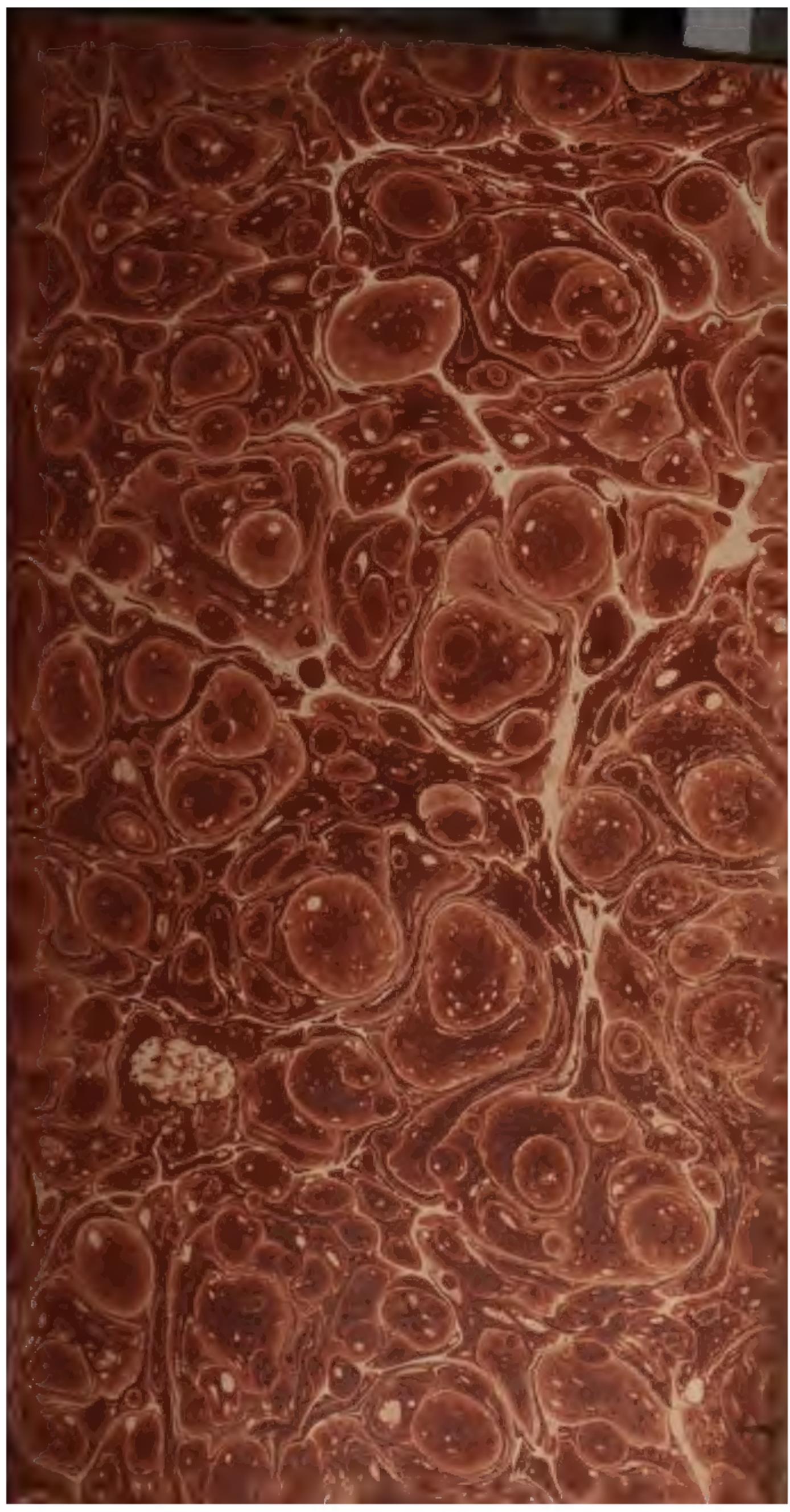
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>





E. BIBL. RADCL.

14
13
12
book





600015528P

191315 d. 49





ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,
AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE
ACADEMIES OF STOCKHOLM, UPSAL, TURIN,
LISBON, LUND, BERLIN, PHILADELPHIA, AND
THE NAT. HIST. SOCIETY OF PARIS;

PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

—“VIR ESQUE ACQUIRIT FUNDO.”—Virg.

VOL. XII.

L O N D O N:

PRINTED BY WILKS AND TAYLOR, CHANCERY-LANE;

And sold by the Proprietor, J. SOWERBY, at No. 2, Mead Place,
Lambeth; by Messrs. WHITE, Fleet-street; JOHNSON, St.
Paul's Church-yard; DILLY, in the Poultry; and by
all Booksellers, &c. in Town and Country.

M D C C C I.

СИАТОНІАЛІЯ

O R C H I S *bifolia.*

Butterfly Orchis.

GYNANDRIA Diandria.

Gen. CHAR. *Nectary* a spur behind the flower.

Spec. CHAR. Bulbs undivided. Lip of the nectary lanceolate and entire, the horn very long. Outer petals spreading.

Syn. *Orchis bifolia.* *Linn. Sp. Pl.* 1331. *Huds. Fl. Ann.* 382. *Wilb. Bot. Arr.* 967. *Rell. Cantab.* 331.

Orchis hermaphroditica bifolia. *Raii Syn.* 380.

IN meadows and pastures throughout most parts of England, but seldom in great plenty. The flowers appear about the beginning of June, and are highly fragrant, especially in an evening.

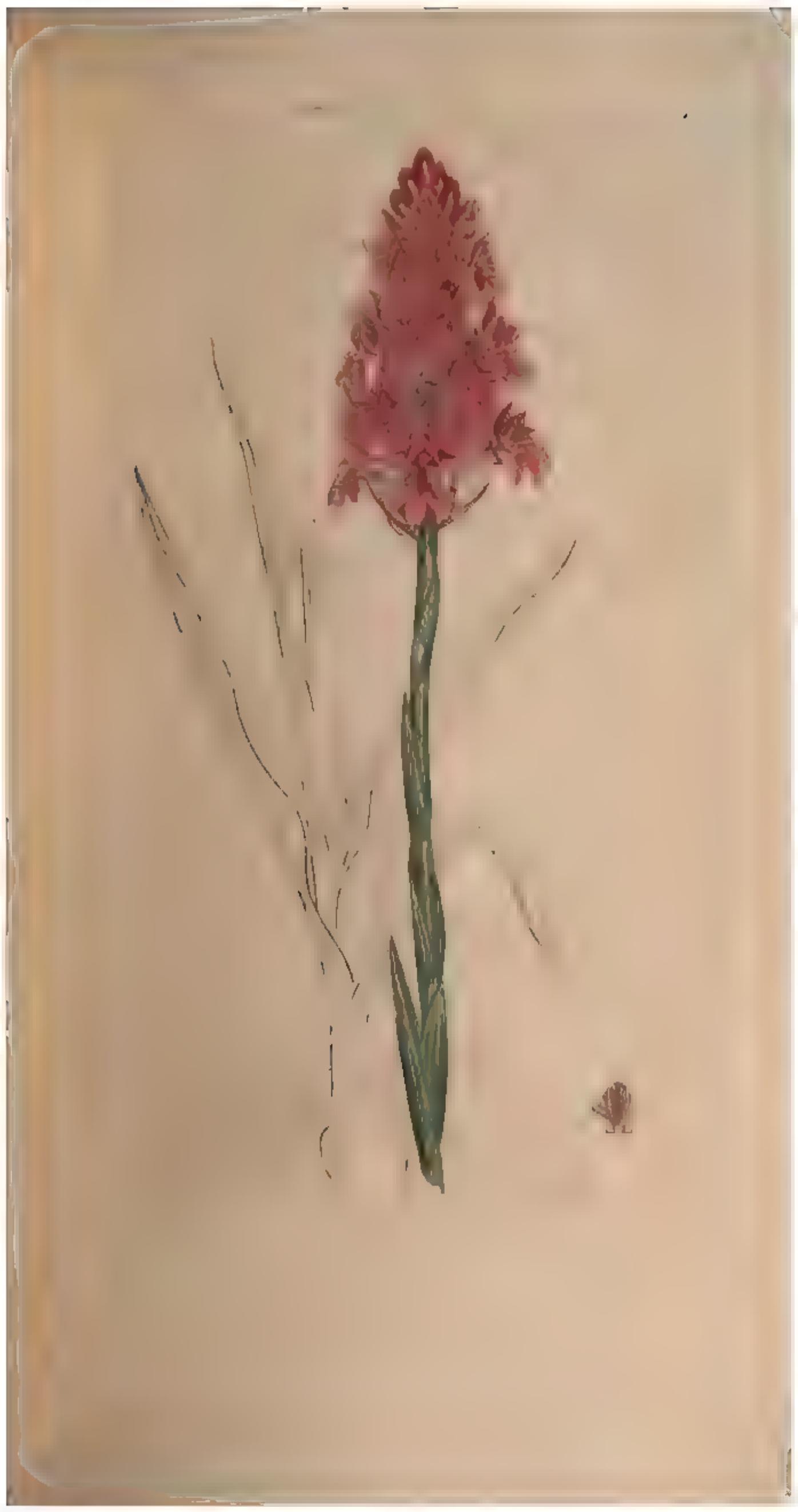




O R C H I S *pyramidalis.**Pyramidal Orchis.***G Y N A N D R I A** *Diandria.***GEN. CHAR.** *Nectary* a spur behind the flower.**SPEC. CHAR.** Bulbs undivided. Lip of the nectary in three equal segments, entire, with two protuberances, the horn long. Petals ovato-lanceolate.**SYN.** *Orchis pyramidalis.* *Linn. Sp. Pl.* 1332. *Huds. Fl. Ali.* 382. *Wittb. Bot. Arr.* 969. *Reib. Cont.* 332.*O. purpurea spica congesta pyramidali.* *Raii Syn.* 377. *tab.* 18.

GROWS in meadows and pastures in a calcareous soil, more especially on chalky downs, flowering later than most others of the Orchis tribe, seldom before July. The whole herb is, as Dr. Stokes remarks, of a silky glossiness, and of an unspotted palish green. Spike dense, the buds erect; but as









ORCHIS Morio.

*Green-winged Meadow Orchis.**GYNANDRIA Monandria.*

GEN. CHAR. *Nectary* a spur behind the flower. *Anther* parallel to the style.

SPEC. CHAR. Bulbs undivided. Lip of the *nectary* four-cleft, somewhat crenate; spur obtuse, ascending. Outer petals cohering, many-ribbed.

SYN. *Orchis Morio.* Linn. Sp. Pl. 1333. Sm. Fl. Brit. 920. Swartz. Orchid. 12. Huds. 383. With. 23. Hull. 194. ed. 2. 252. Reth. 343. Sibth. 10. Abbot. 192. Curt. Lond. fasc. 3. t. 59.

O. morio fœmina. Raii Syn. 377.

A NATIVE of meadows and pastures that are rather moist, flowering in May, or early in June.

Root of two nearly globose bulbs, one of which is a little removed from the other by its stalk. Leaves lanceolate, of a deepish, but rather glaucous, unspotted green; paler and shining underneath. Spike rather loose, of from 4 to 6 or 10 flowers, whose predominant colour varies from a very pale to a rather deep reddish purple*, but in all the varieties the green ribs of the outer petals, (or rather 3-leaved calyx), which mark this species, are equally strong. These leaves cohere over the 2 real petals within. The spur is curved upward, and obtuse. Lip of 2 deflexed parallel lobes, each of which is cloven and irregularly crenate, the central ridge between them white, dotted with purple. The common stalk, bracteas and gerinens are more or less tinged with the same hue.

We are persuaded of the propriety of terming the 9 outer leaves of the flower, in the Orchis tribe, a calyx, and the 9 inner ones petals, see *Introd. to Bot.* 461, according to which principle our descriptions may, at the pleasure of the reader, be reformed.

* See Mr. Sowerby's very ingenious Elucidation of Colours, tab. 5. t. 22.



Iris pseudacorus L.





[631]

O R C H I S *mascula.*

Early Purple Orchis.

G Y N A N D R I A *Diandria.*

GEN. CHAR. *Nectary* a spur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the *nectary* in four crenate lobes : spur blunt. Outer petals reflexed.

Syn. *Orchis mascula.* *Linn. Sp. Pl.* 1333. *Huds.* 383.
Withb. 24. *Hull.* 194. *Rehb.* 333. *Sibth.* 10. *Abbot.*
192. *Curt. Lond. fasc.* 2. t. 62. *Dicks. H. Sicc.*
fasc. 11. 14. *Withb. Med. Bot.* t. 90.

O. morio mas foliis maculatis. *Rau Syn.* 376.

THIS is the first Orchis that appears in the spring, and one of the most common. Pastures, groves, and shady dells are adorned with its purple blossoms about the end of April or the beginning of May. Then the *Cardamine pratensis*, the *Saxifraga granulata*, or the Cowslip, combine with it to form many a rustic nosegay, while the *Adoxa*, diffusing its musky scent in vain, is trampled under foot, in the search for these more ostentatious flowers.

The root consists of two large oval bulbs, and is one of those





ORCHIS ustulata.

Dwarf Orchis.

GYNANDRIA Diandria.

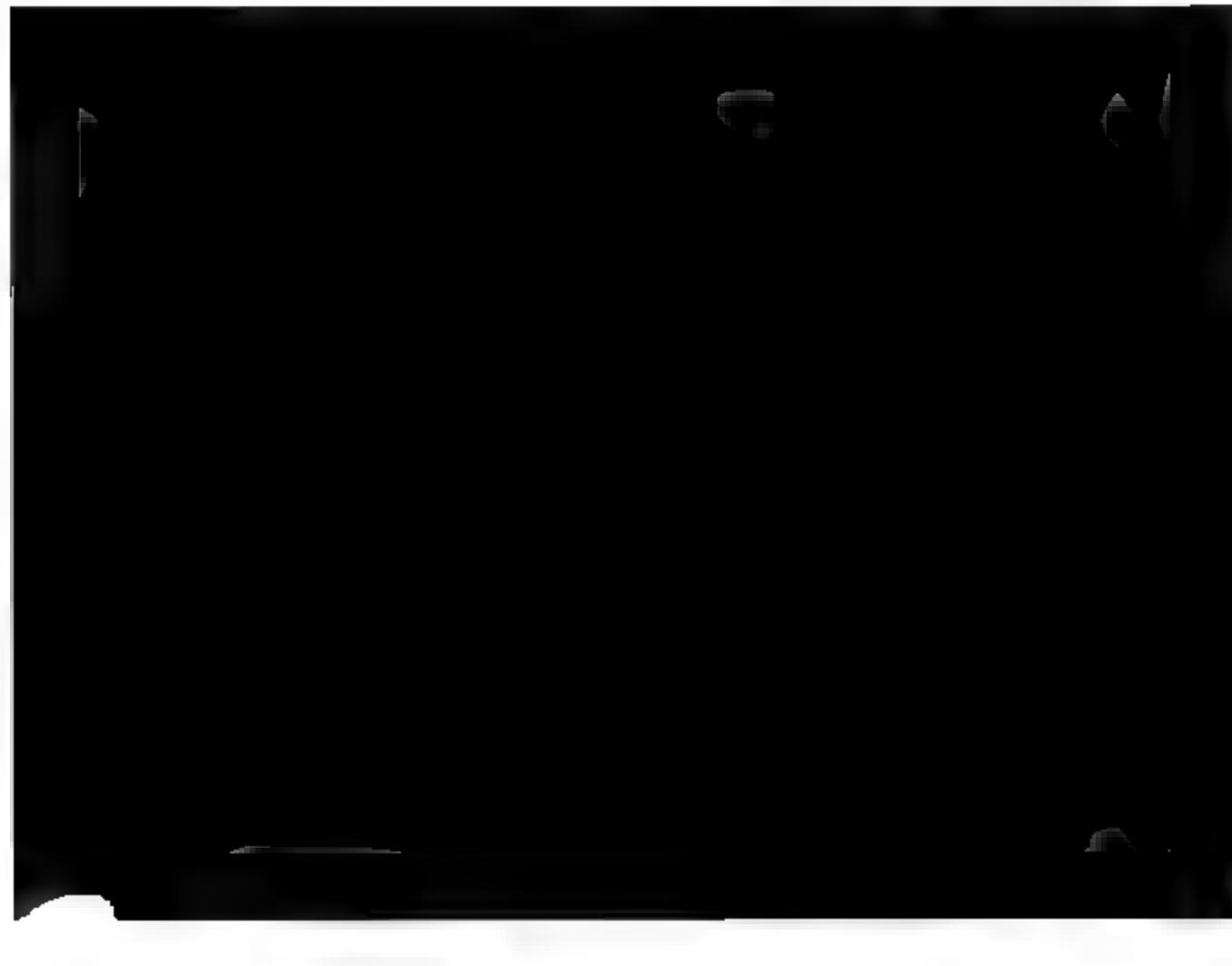
GEN. CHAR. Nectary a spur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the nectary four-cleft, rough with points; horn obtuse, petals distinct.

SYN. *Orchis ustulata.* *Linn. Sp. Pl. 1333. Huds. Fl. An. 384. Nutt. Bot. Arr. 973.*

O. pannonica +. *Raii Spp. 377.*

THE Little Orchis figured on this plate has obtained its trivial name of *ustulata*, from the remarkable colour of its flowers, which appear on a cursory view, and especially before they are fully expanded, as if scorched or blackened by heat. When





18

V



ORCHIS militaris.

*Narrow-lipped Military Orchis.**GYNANDRIA Monandria.*

GEN. CHAR. *Nectary a spur behind the flower. Anther parallel to the style.*

SPEC. CHAR. Bulbs undivided. Lip of the nectary five-cleft, rough with points; its segments linear. Petals acuminated, confluent.

SYN. *Orchis militaris.* *Linn. Sp. Pl. 1333. Sm. Fl. Brit. 922. Swartz. Orchid. 14. Huds. 384.*

With. 26. var. 3. Hull. 194. var. 3. Sibth. 10.

O. galea et alis serè cinereis. *Raii Syn. 378.*

WE have in v. 1. t. 16, figured the Broad-lipped Military Orchis, or *O. militaris* β , *Fl. Brit.* 923; and as the present plant, gathered near Dartford by Mr. Peet, F.L.S., is generally esteemed a distinct species, and is decided to be so by the greatest botanist in this tribe Professor Swartz, we think it essential to make the English student acquainted with it, especially as its beauty and rarity render it a general favourite. A frequent examination of these charming plants in the grassy walks about Rome, see *Tour on the Continent*, ed. 2. v. 2. 312, determined me to consider them as varieties; but possibly the acuminated calyx or petals, and the more or less linear lobes of the lip, may keep this distinct from t. 16, which must then retain the name of *fusca*, and of this the *moravica* of Swartz is not even a variety, while his *tephrosantos* is a very slight one of *O. militaris*. The bracteas vary in size.

All the varieties of these two species smell like Woodruff while drying. They flower with us in May, and love a chalky soil, being chiefly found in Kent and Oxfordshire. If treated as mentioned in *Intr. to Bot.* 110, they succeed well in a garden-pot. The reader is referred to p. 455 of the same work for the reasons which lead us now to refer all the *Orchidæ*, except *Cypripedium*, to *Gynandria Monandria*, they having properly but 1 anther.—According to the system of Swartz, *Satyrium hircinum*, *viride* & *albidum* are species of *Orchis*, and Nature confirms this arrangement.

1873



C





(

ORCHIS militaris.

*Military Orchis.**GYNANDRIA Diandria.***GEN. CHAR.** Nectary a spur behind the flower.**SPEC. CHAR.** Bulbs undivided. Lip of the nectary five-cleft, rough with points : horn obtuse. Petals confluent.**SYN.** *Orchis militaris.* *Linn. Sp. Pl.* 1333. *Huds. Fl. An.* 384. *Witb. Bot. Arr.* 974.*O. magna, latis foliis, galea fusca vel nigricante.*
Raii Syn. 378.

THESE are few of the English Orchises which can come in competition with the species here represented, in point of elegance. From a fancied similitude in the nectarium to the shape of the human body, it has obtained its popular title of Man-Orchis. In the colour of its flowers it varies considerably: the nectarium indeed generally preserves an uniformity of colour in most individuals; but the petals in some are of a much deeper tinge than in others, being frequently of a pale ash colour; at other times of a brownish cast, and in some individuals even of a deep brownish purple, which variety is usually called the blackish-flowered Man-Orchis. This species flowers in the beginning of June, and grows generally on dry and chalky soils, and in the neighbourhood of woods. It is much less common than several others of this genus. As there is another species of British Orchis which is generally known by the title of Man-Orchis (and which will hereafter be figured in the present work), we have thought it better to apply the term Military to this species, taken from the Latin name, which has been given on account of the resemblance which the upper part of the flower bears to a helmet.



ORCHIS latifolia.

Marsh Orchis.

GYNANDRIA Monandria.

GEN. CHAR. *Nectary* a spur behind the flower. *Anther* parallel to the style.

SPEC. CHAR. Bulbs somewhat palmate. Horn of the nectary conical: lip three-cleft. Bracteas double the length of the flowers.

SYN. *Orchis latifolia.* *Linn. Sp. Pl.* 1334. *Sm. Fl. Brit.* 924. *Huds.* 385. *With.* 26. *Hull. ed.* 2. 253. *Relh.* 334. *Sibth.* 11. *Abbot.* 192. *Curt. Lond.* fasc. 5. t. 65. *Fl. Dan.* t. 266.

O. *palmata pratensis latifolia, longis calcaribus.* *Raii Syn.* 380.

β. O. *palmata palustris, tota rubra.* *Dill. in Raii Syn.* 382.

FREQUENT in marshy meadows, flowering in May and June.

The roots are imperfectly palmate, consisting of unequal awl-shaped straightish lobes or portions. Stem hollow, leafy, from one to two feet high. Leaves sheathing, lanceolate, broadish, gradually smaller upwards, unspotted. Spike dense, many-flowered, pointed. Bracteas remarkably long, erect, leafy, sometimes coloured. Flowers varying in hue from a pale flesh-colour to a full rose or crimson, the side petals dotted, the middle of the lip elegantly variegated. Spur deflexed, somewhat shorter than the germen.

We adopt the variety β from Dillenius only. This species is certainly variable in size and colour, and, as Ray observes, is described in books several times over. It has been thought by some of our friends that two species, differing somewhat in their times of flowering, length of bracteas, and colour of the corolla, exist in England, but we have not been able to ascertain this point.

2308



PL. 2308





ORCHIS maculata.

*Spotted Palmate Orchis.**GYNANDRIA Diandria.***GEN. CHAR.** *Nectary* a spur behind the flower.**SPEC. CHAR.** Bulbs palmate, spreading. Spur rather shorter than the germen: lip three-cleft, flat. Outer petals divaricated.**SYN.** *Orchis maculata.* *Linn. Sp. Pl. 1335. Huds. 385. Wthb. 27. Hull. 195. Relb. 334. Sibtb. 11. Abbot. 193.**O. palmata speciosiore thyrsso, folio maculato.* *Raii Syn. 381.*

MOST common in meadows or moist pastures, but it occurs also in groves, and sometimes in dry barren ground, flowering towards the end of June or beginning of July.

The bulbs in this species are palmate as in *O. conopsea*. Stem leafy, simple, 12 or 18 inches high, round, solid. Leaves lanceolate, keeled, spotted on both sides with scattered purple blotches. Spike ovate, various in size. Bracteæ scarcely longer than the germen, purplish. Flowers very variable in size, as well as in the purple lines and spots on the nectary. In general the ground of the whole flower is white, tinged with a purple blush, and the spots are deep purple, making a very elegant appearance when closely examined. The lip is flat, with two large rounded side-lobes, and an intermediate sharp small point. Stamina green.

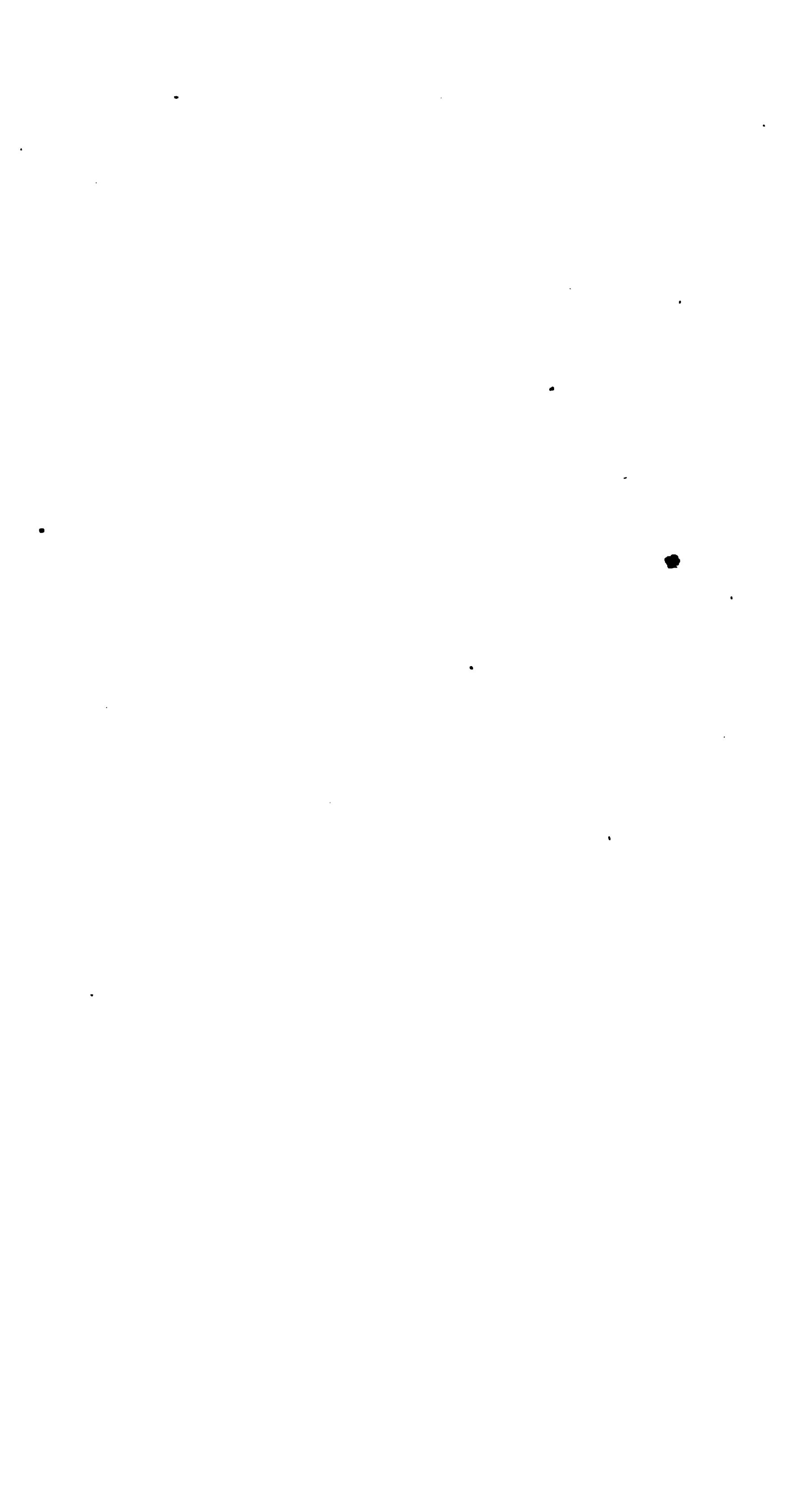
The only species with which this can be confounded is *latifolia*, but that is easily known by the great length of its bracteæ, and its uniformly green leaves.

Linnæus in *Pl. Suec.* remarks that the bulb which is destined to bear the plant of next year is so heavy as to sink in water, while that from which the present herb springs is light enough to swim. This is plainly his meaning, which is not so clearly expressed in Dr. Withering's concise translation as usual with him.



002





ORCHIS conopsea.

Aromatic Orchis.

GYNANDRIA Diandria.

GEN. CHAR. Nectary a spur behind the flower.

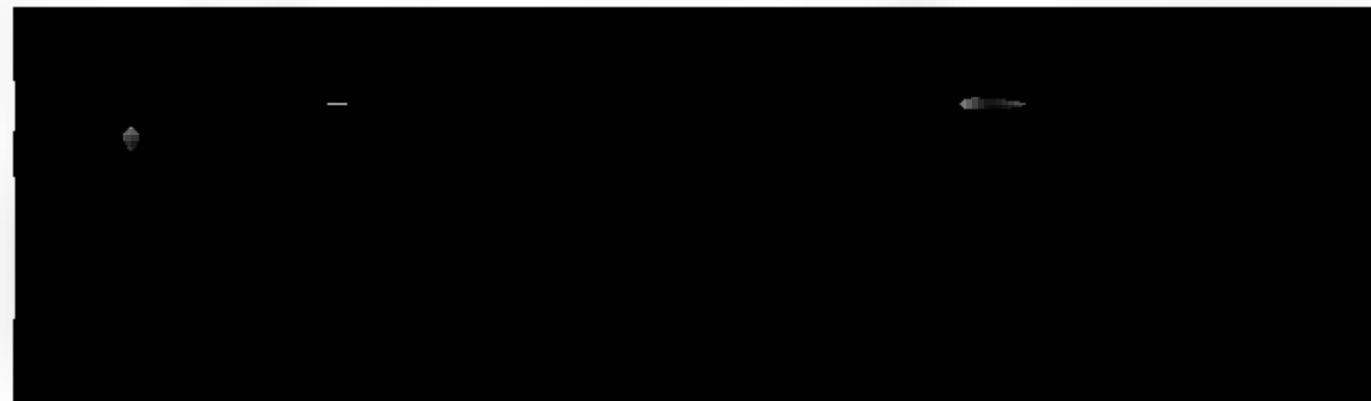
SPEC. CHAR. Bulbs palmated. Nectary very slender and acute, longer than the germen; lip in three parts. Two of the petals spreading very much.

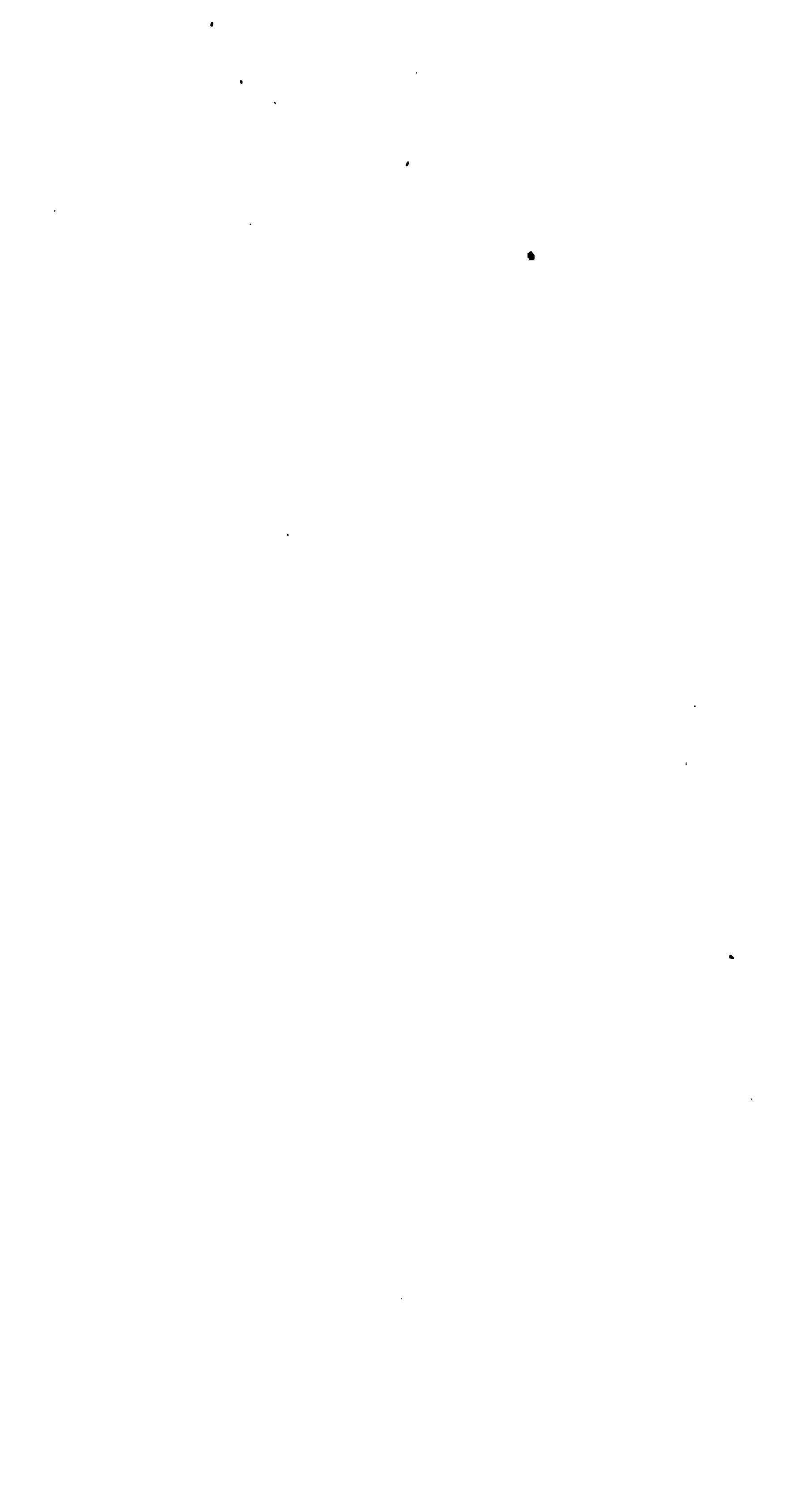
SYN. *Orchis conopsea.* *Linn. Sp. Pl. 1335. Huds. Fl. An. 385. Witb. Bot. Arr. 977. Relb. Cantab. 335.**Palmata rubella cum longis calcaribus rubellis.* *Raii Syn. 381.*

THIS Orchis is found in wet pastures and bogs, in June and July. Its flowers are highly fragrant, approaching in smell to the red clove pink; their colour varies from deep purplish red, to flesh colour, and even white. Its leaves are long, and narrower than those of any other English species.

The specific name *Conopsea* alludes to a fancied resemblance of the flowers of this plant to the genus of insects called *Conops* by Linnæus. In many other species of this tribe the flowers much more evidently resemble insects.







S A T Y R I U M hircinum.*Lizard Satyrion, or Orcbis.**GYNANDRIA Diandria.*

GEN. CHAR. *Nettary an inflated roundish bag behind the flower.*

SPEC. CHAR. Bulbs round. Leaves lanceolate. Lip in three segments; the intermediate one very long, twisted, linear, abruptly jagged at the tip.

Syn. *Satyrium hircinum. Linn. Sp. Pl. 1337. Huds. Fl. An. 386. Witb. Bot. Arr. 979.*

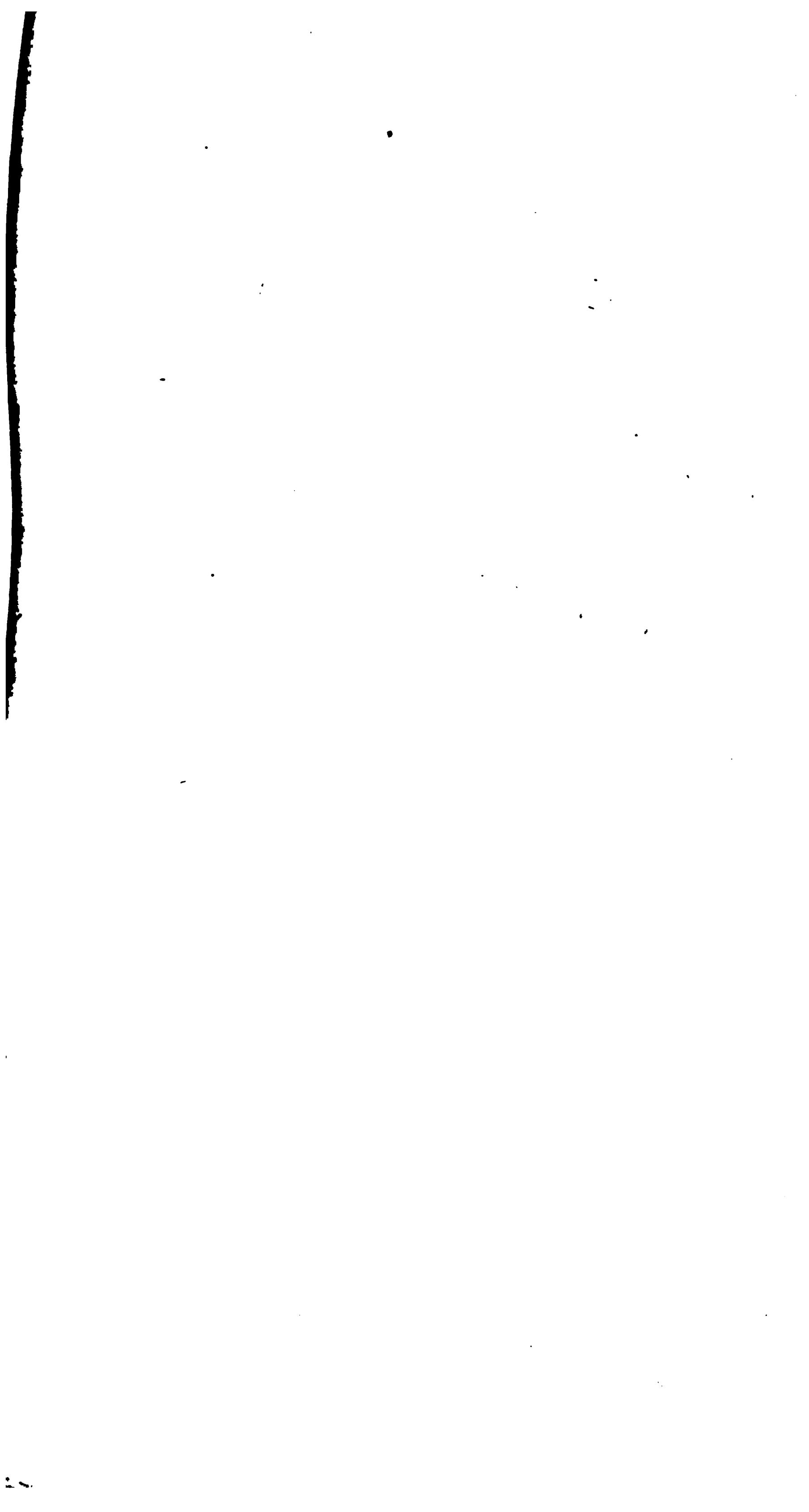
Orchis barbata foetida. Raii Syn. 376.

IT is with peculiar pleasure we present the public with so very rare and curious a plant as that which is here figured, and which was drawn from a wild specimen obligingly communicated from the neighbourhood of Dartford by Mr. Lewin, well known by his fine work on British birds. Ever since the time of Ray it has been occasionally met with in that neighbourhood, though no where else in England; but the greediness of collectors has frequently endangered its total destruction, and in some seasons none can be found in flower. It is



Botany by J. C. W.





S A T Y R I U M viride.

Frog Satyrion, or Orchis.

G Y N A N D R I A Diandria.

Gen. CHAR. *Neckery* an inflated roundish bag behind the flower.

Spec. CHAR. Bulbs palmated. Leaves oblong, obtuse. Lip linear, three-cleft, the middle segment smallest.

Syn. *Satyrium viride.* *Linn. Sp. Pl.* 1337. *Huds. Fl. An.* 386. *Wittb. Bot. Att.* 981. *Reb. Cart.* 535.

Orchis palmata minor flore luteo-viridi. *Raii Syn.* 381.

IN meadows and pastures, especially in a gravelly or rocky soil, in most parts of England, flowering about May, June or July, but growing dispersed, so as to be rarely found in any quantity together. We were favoured with this specimen from near Luton Hoo, Bedfordshire, by Mr. Sibley, a gentleman who has paid much attention to the Orchis tribe.

Dr. Stokes has given an excellent and full description of this plant in the *Bot. Att.* to which we have nothing to add, nor can the species be confounded with any other. The colour of the lip varying from yellowish green to brown, and its middle segment varying likewise in size, a common accident in this tribe, gave occasion to Mr. Hudson to describe a *Satyrium fuscum*, *Fl. An. ed. 1.* but on no sufficient grounds, as the brown colour and the equally divided lip by no means constantly accompany each other, witness our figure.







[505]

S A T Y R I U M albidum.*White Satyrion.**G Y N A N D R I A Diandria.***G E N. C H A R.** *Nectary an inflated roundish bag behind the flower.***S P E C. C H A R.** Bulbs fasciculate. Leaves lanceolate. Lip of the nectary three-cleft, acute; the middle segment longest.**S Y N.** *Satyrion albidum.* *Linn. Sp. Pl. 1938. Huds. 397. With. 31. Lightf. 519. Dicks. H. Sicc. fasc. 1. 15.**Orchis palmata thyrso specioso, longo, dense stipato, ex viridi albente.* *Dill. in Raii Syn. 332.*

FRESH specimens of this rare plant were sent us in June last from Hafod, Cardiganshire, by Miss Johnes. It grows copiously on the elevated exposed grassy hills which surround that romantic place, as well as in similar situations in Scotland; nor have we ever observed it in moist meadows, as Hudson (after Dr. Richardson in Ray's Synopsis) mentions. Hence I have been led to suspect the propriety of this synonym, and whether the preceding *Orchis*, n. 23, which remains unnoticed by late authors, may not rather belong to the plant before us. It must be confessed, indeed, that the epithet "*odorata*" scarcely agrees with *Satyrion albidum*, but neither does "*thyrso specioso*." I have had some idea of this n. 23. being the *Orchis sambucina*, which the Rev. Mr. Wood of Leeds thinks he once found near Snowdon.

The root of *S. albidum* is thus explained by Mr. Sowerby, from the consideration of several specimens: *a* a central fibre; *b* one a little above it; *c c* a pair of fibres, one on each side; *d d* a pair of old bulbs, the origin of the present plant; *e e* a pair of bulbs for next season, *f f* a younger pair.

The stem is scarcely a foot high, roundish, leafy. Leaves sheathing, lanceolate, of a light green, rather glaucous beneath, the lowermost broadest and most obtuse. Spike of many small greenish-white flowers, almost inodorous, each of them accompanied by a lanceolate bractea rather longer than the germen. Petals concave, all nearly equal. Spur longer than in most of the genus, so as almost to make it an *Orchis* according to Linnæan rules, and it certainly has great affinity with several of that genus in other respects. Lip green, palmate, with three lobes, of which the middle one is larger, and sometimes blunter, than the others.

302







SATYRIUM repens.*Creeping Satyrion.**GYNANDRIA Diandria.*

GEN. CHAR. Nectary an inflated roundish bag behind the flower.

SPEC. CHAR. Roots fibrous, creeping. Leaves ovate, radical. Flowers leaning one way.

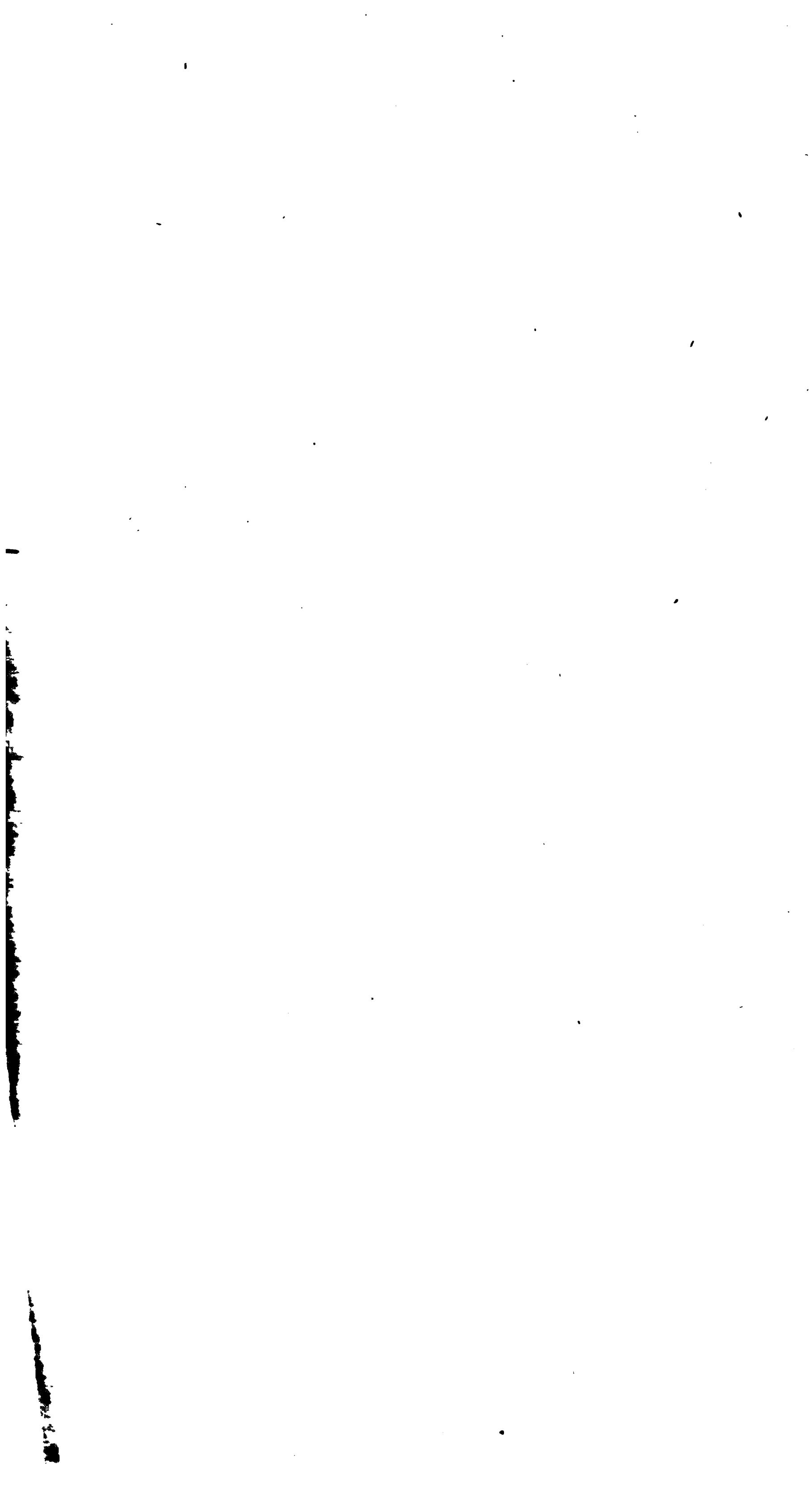
SYN. *Satyrium repens.* *Linn. Sp. Pl. 1339.* *Huds. Fl. An. 387.* *With. Bot. Arr. 982.* *Lightf. Fl. Sc. 520. f. 22. bad.* *Dicks. Dr. Pl. 85.*

ACCORDING to the custom we have hitherto adopted of beginning each volume with some peculiarly interesting plant, we here exhibit one of the most rare of the favourite Orchis tribe, for which we are obliged to James Brodie, Esq. the gentleman who discovered *Pyrola uniflora* (t. 146.) in Scotland, and communicated it to Mr. James Hoy, as Mr. Hoy himself has informed us since our account of that plant was published. This *Satyrium* grows in Alpine fir forests, not in "pastures and thickets." Our specimens were sent fresh from Scotland by the post, and came in perfectly good order, as plants of this tribe dry so very slowly.

The roots are perennial, truly creeping, not bulbous, very succulent, downy, running among moss, and attaching themselves to decayed fragments and leaves of fir in the manner of fungi. Leaves in tufts at the end of each runner, on broad sheathing footstalks, ovate, succulent, strongly 5- or 7-ribbed, and reticulated with transverse veins which are often brown, and the leaves are now and then prettily chequered with that colour. Stalks erect, 6 or 8 inches high, round, downy upwards, clothed with a few alternate sheathing bractæ, and terminated with an erect spike of numerous pale flesh-coloured fragrant flowers, leaning one way, but turning a little spirally round the stalk; each being accompanied by a lanceolate, concave, coloured, downy bractea, longer than the germen, which also is clothed with viscid downiness, as well as the three broader external petals. Haller describes the flower as having only three petals, besides the nectary, which Lightfoot copies, having probably never seen the plant alive, for his plate is excessively faulty. Mr. Sowerby found two internal lanceolate petals (as in the figure) which, like those of *Orchis reticulata*, are very difficult to be detected in a dried specimen, being "glued as it were" to the upper one, which the others are not by any means, though Haller says they are. Perhaps that great naturalist might make slight notes in the field, and confide himself in copying them afterwards. Lightfoot's account is compiled from Haller's without acknowledgment. His whole book is nearly made up of such plagiarisms, and he is however often deservedly led astray.







OPHRY S *Nidus avis.**Bird's-nest Ophrys.**GYNANDRIA Diandria.*

GEN. CHAR. *Nectary consisting of a lip only, slightly carinated at the back.*

SPEC. CHAR. Bulbs in the form of fleshy clustered fibres. Stem clothed with scaly sheaths, without leaves. Nectary cloven.

Syn. *Ophrys Nidus avis.* *Linn. Sp. Pl.* 1339. *Huds. Fl. An.* 388. *Witb. Bot. Arr.* 983. *Rell. Cantab.* 336.

Nidus avis. *Raii Syn.* 382.

THIS singular species of *Ophrys*, whose habit so nearly approaches the genus *Orobanche*, is probably like that genus





14



1
2
3
4
5
6
7
8

OPHRYS corallorrhiza.

Coral-rooted Ophrys.

GYNANDRIA Diandria.

GEN. CHAR. Nectary consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Root branched, fleshy, zigzag, divaricated. Stem sheathed, without leaves. Lip of the nectary slightly three-lobed.

VN. *Ophrys corallorrhiza.* *Linn. Sp. Pl.* 1399. *Sm. Fl. Brit.* 932. *Huds.* 988. *With.* 32. *Hull.* 196. *Lightf.* 523. t. 23. *Fl. Dan.* t. 451.

Corallorrhiza n. 1901. *Hall. Hist.* v. 2. 159. t. 44. *Cymbidium corallorrhizon.* *Swartz. Act. Holm. ann.* 1800. 238.

Dentaria minor. *Ger. em.* 1585.

LIIGHTFOOT, who first made this known as a British species, saw it only in one place, and there sparingly; "in a moist hanging wood, on the south side, near the head of Little Loch Broom, on the western coast of Ross-shire." We know not that any person has since met with it, till Mr. Thomas Bishop, to whom we are obliged for fresh specimens, found it in small quantities, in 1804 and 1805, in Methven wood 6 miles from Perth. It has not been observed in England, Wales or Ireland, though surely to be expected in the boggy alpine woods of the last-mentioned country. It is perennial, and flowers in July.

The root differs greatly from all other British plants of this family, being very much branched and divaricated, whitish, fleshy, somewhat downy. The stem is about a span high, simple, clothed with 2 or 3 alternate, cylindrical, greenish, swelling sheaths, which supply the place of leaves. Spike terminal, of a few flowers, each of which has a minute at the base of its little stalk. Petals lanceolate, acute, a green rib; 3 of them erect; 2 spreading and ward. Lip ovate, furrowed, as long as the petal, notched on each side, in which last particular *Fl. Brit.* requires correction. The lid of the lip and moveable.



2547







[1548]

OPHRYS ovata.

*Common Twayblade.**GYNANDRIA Diandria.*

GEN. CHAR. Nectary consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Root of clustered fleshy fibres. A pair of elliptical leaves on the stem. Nectary linear, two-lobed.

Syn. *Ophrys ovata.* Linn. Sp. Pl. 1840. Sm. Fl. Brit. 932. Huds. 388. With. 34. Hull. 196. Relh. 347. Sibth. 12. Abbot. 195. Curt. Lond. fasc. 3. t. 60.

Epipactis ovata. Swartz. Act. Holm. ann. 1800. 232. *Bifolium majus*, seu *Ophrys major quibusdam.* Raii Syn. 385.

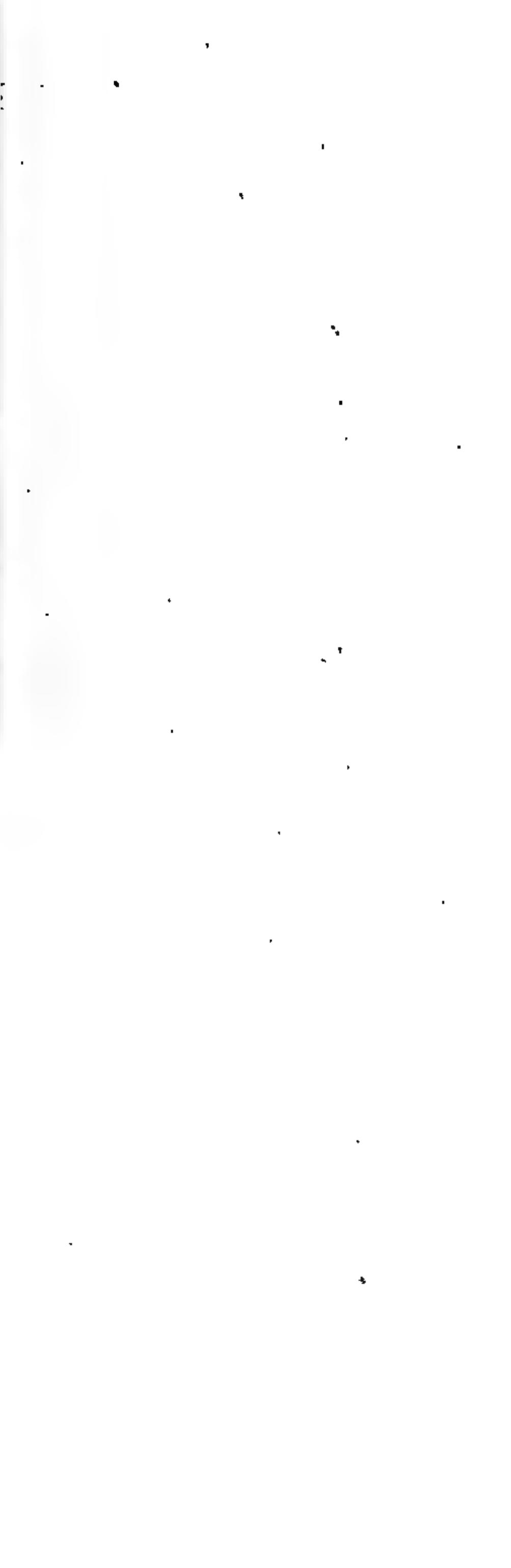
IN groves and pastures not unfrequent, flowering in June. Our specimen, gathered on the bushy hills above Matlock Bath, is rather smaller than the usual size of the plant in more moist situations.

The root is perennial, consisting of numerous simple fibres. Whole plant of a greenish cast. Stem a foot or 18 inches high, bearing about its middle a pair (rarely more) of sheathing, elliptical, ribbed, smooth leaves. Below these leaves the stem is angular and smooth, above them round and downy, terminating in a long, dense, upright spike of numerous green flowers, each on a partial stalk, with an acute bracteæ. Petals with a red or brown tinge, all concave, and directed rather upward. Lip long, pendent, yellowish green, linear, concave at the base, with a rib on the upper side, and ending in 2 rather spreading equal lobes. Column 2-lipped, the upper lip bearing the antheræ, which are brown, parallel, often falling out (as in our magnified figure), discharging two masses of yellow pollen which stick to the lower lip of the column, under which, on its other side, is the stigma. Very often these masses of pollen are scattered over other parts of the plant, as Dr. Scott and others have noticed in *Orchis bifolia*.

1548







OPHRY'S cordata.

*Heart-leaved Mountain Ophrys.**GYNANDRIA Diandria.*

GEN. CHAR. Nectary consisting of a lip only, slightly carinated at the back.

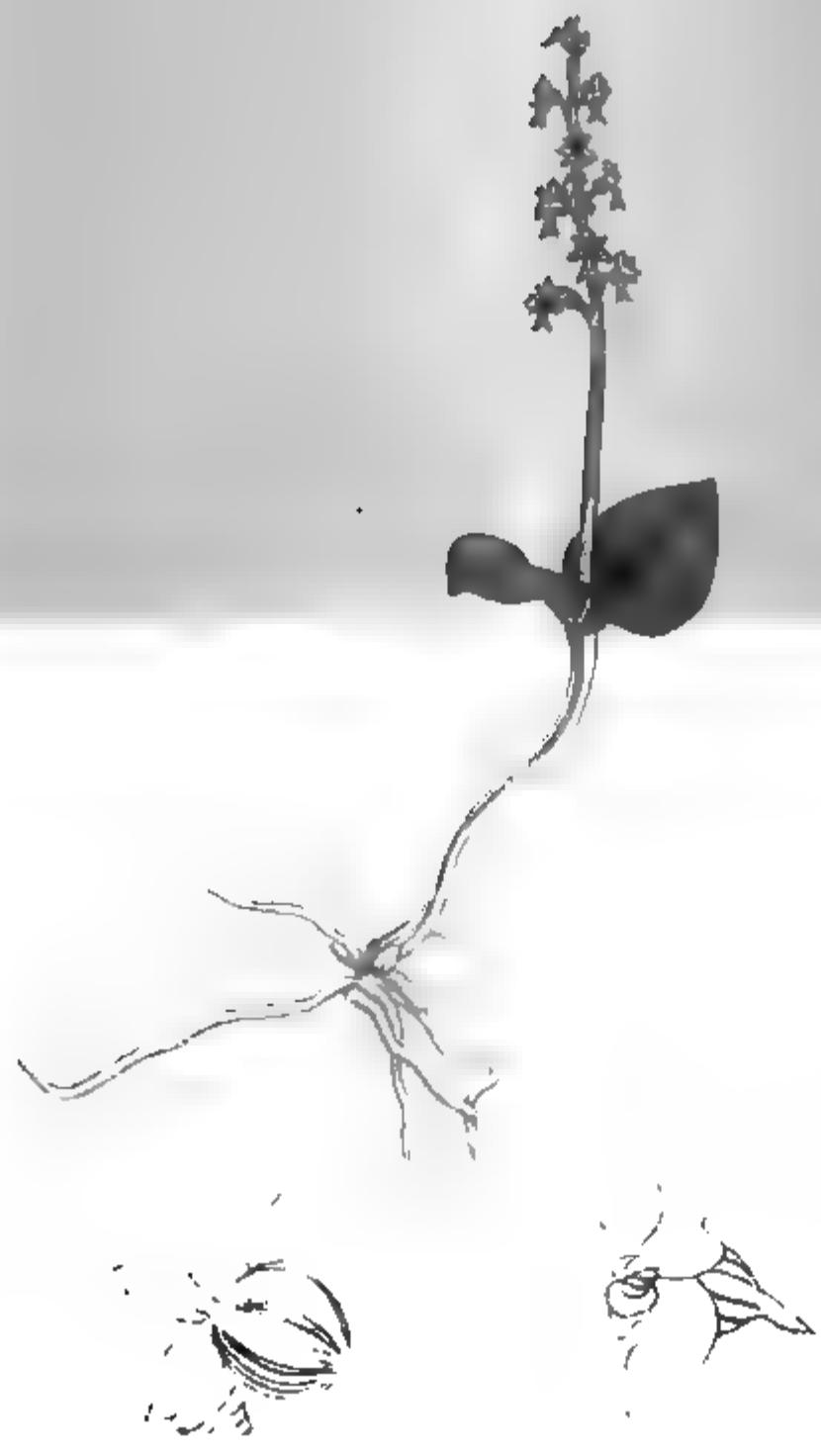
SPEC. CHAR. Root of clustered fleshy fibres. A pair of heart-shaped leaves on the stem. Nectary with four lobes.

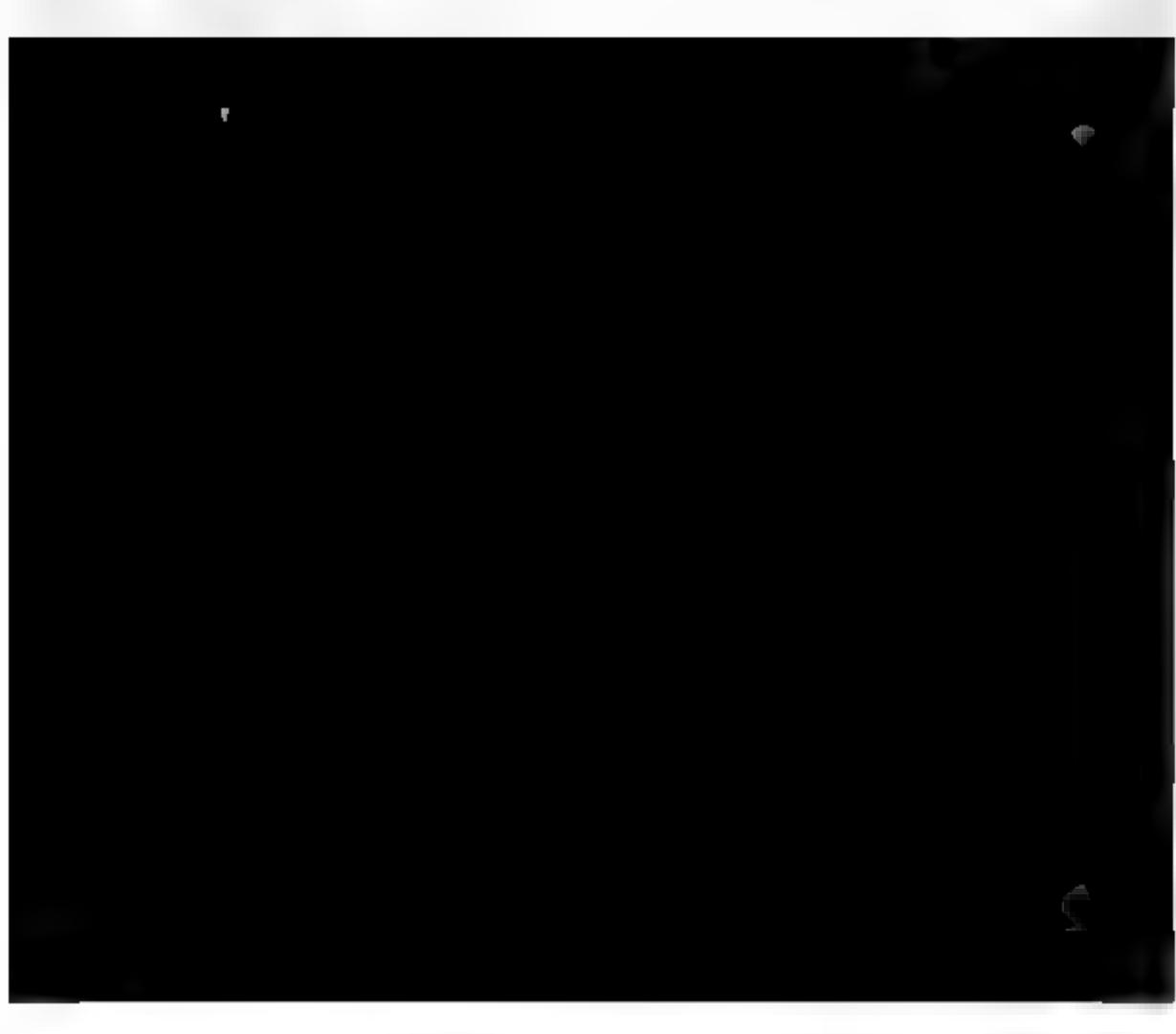
SYN. *Ophrys cordata.* Linn. Sp. Pl. 1340. Huds. Fl. An. 388. Wth. Bot. Arr. 988.

Bifolium minimum. Raii Syn. 385.

FOR this rare alpine plant we are obliged to Mr. Salt of Sheffield, a most assiduous investigator of the vegetable creation, who gathered it on the high turf-y moors to the southwest of that town, as indicated by Dr. Smith in *Withering's Bot. Arr.* It grows in moist, shady spots, flowering in June or July.

The root is not much unlike those of *Ophioglossum vulgatum* and *Osmunda lunaria*; we suspect it to be, like those, truly perennial, and not forming a cluster of fibres one year which are totally obliterated (while a new cluster is forming) the next. Stem solitary, angular, 4 or 5 inches high, simple, erect, bearing about its middle a pair of opposite, heart-shaped, pointed, smooth, veiny leaves. Spike terminal, upright, composed of numerous green inconspicuous flowers, whose petals are spreading, equal in length, the 2 innermost only being narrower than the rest, and all often tinged with brown. Lip of the nectary long, dependent, yellowish, having 2 extended linear lobes at the base, and being cloven half way into two longer ones of the same figure. By these first-mentioned lobes this species is essentially distinguished from the common *Ophrys aranea* (not to mention size, or the form of the leaves), which has only very slight prominences in that part of its nectary. The capsule is globose, purplish, crowned with the permanent withering corolla, and bursting by lateral clefts.







OPHRY'S spiralis.

*Spiral Ophrys, or Ladies' Traces.**GYNANDRIA Diandria.***GEN. CHAR.** Nectary consisting of a lip only, slightly carinated at the back.**SPEC. CHAR.** Bulbs clustered, oblong. Stem somewhat leafy. Flowers leaning spirally to one side. Lip undivided, crenate.**SYN.** *Ophrys spiralis.* *Linn. Sp. Pl.* 1340. *Huds.* 389.
With. 33. *Rehb.* 337. *Sibth.* 12. *Curt. Lond.*
fasc. 4. *t.* 59. *Dicks. H. Sicc. fasc.* 10. 17.*Orchis spiralis alba odorata.* *Rai Syn.* 378.

MISS Lysons, to whom we were obliged for a wild specimen of the *Adonis* t. 308, favoured us with this *Ophrys*, which may justly be reckoned among the rarer British plants; for although it grows in many parts of the kingdom occasionally, either on dry gravelly or chalky hills or in meadows, and often in great plenty; it will seldom be found flowering two years together on the same spot, nor perhaps till 8 or 10 years after it has been first observed, notwithstanding the root is perennial. Nor do the leaves constantly appear; or if they do, in some years they speedily wither away. Its flowering season is August or September.

The root consists of several oblong downy bulbs, each appearing to be formed 2 or 3 years before it produces the flowering plant, as in *Satyrion albidum*, t. 505; only in the present case those bulbs seem to be produced solitarily, not in pairs. Stem single, 5 or 6 inches high, invested with a few small sheathing leaves. The radical leaves are ovate, spreading, glaucous, smooth, sometimes finely pubescent about the edge. Spike terminal, erect, of many small, greenish-white, sessile, sweet-scented flowers, leaning to one side, but arranged in a spiral line either to the right or left, and each overshadowed by a concave pointed bractea. The whole spike, with its stalk, is downy and viscid. Three upper petals adhering together. Lip oblong, crenate, with an obsolete lobe at the base. What appears to be the stigma is a very peculiar roundish hairy protuberance, with a cloven point, hanging as it were beneath the antheræ. See Dr. Stokes's full description in Withering.



1



OPHRY S Loeselii.

Dwarf Ophrys.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary consisting of a lip only, slightly carinated at the back.*

SPEC. CHAR. Bulb oval. Stalk naked, triangular. Lip roundish, concave, undivided. Petals linear. Leaves ovato-lanceolate.

SYN. *Ophrys Loeselii.* *Linn. Sp. Pl. 1341.* *Wub. Bot. Arr. 988.*

O. liliifolia. *Reb. Cant. 337.* *Huds. Fl. An. 390. β.*
Pseudo-Orchis bifolia palustris. *Raii Syn. 382.*

RAY has mentioned this plant as the production of some moors in the neighbourhood of Cambridge: but those moors were long searched for it in vain by succeeding botanists, till the Rev. Mr. Relhan discovered it a very few years ago, growing, not very sparingly, where Ray has reported. This gentleman attributes its remaining so long latent, to its usual situation close to the stems of rushes. To him we are obliged







O P H R Y S monorchis.*Musc. Orchis.***G Y N A N D R I A Diandra.**

Gen. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

Spec. CHAR. Bulb globose. Stalk naked. Lip of the nectary three-cleft, as well as the inner petals.

Syn. *Ophrys Monorchis.* *Linn. Sp. Pl. 1342. Indl. Pl. An. 390. Witb. Bot. Arr. 990. Relb. Cant. 338.*

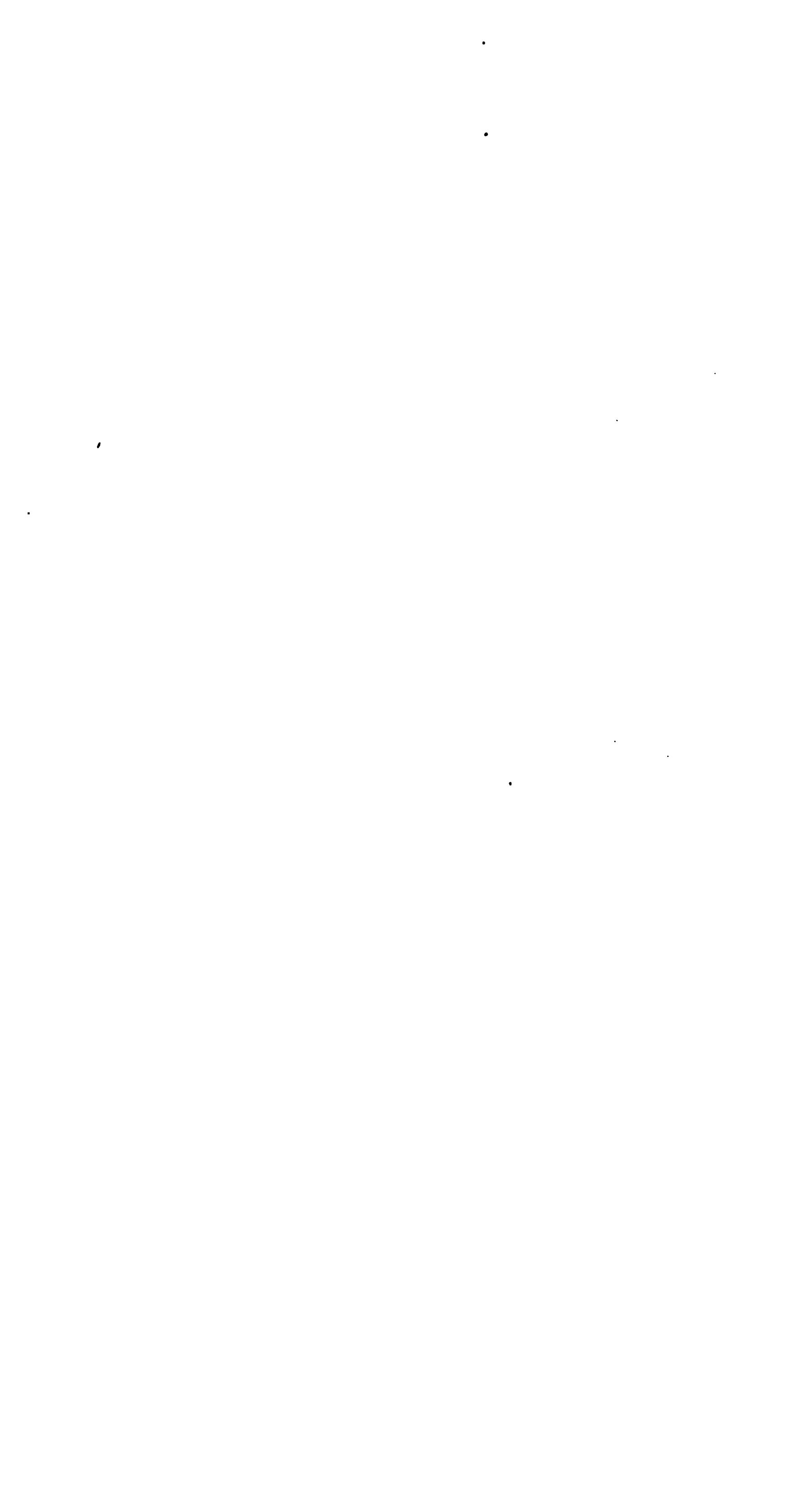
Orchis odorata moschata sive *Monorchis.* *Rau Syn. 378.*

GROWS in dry chalky pastures. We have received it from Kent by favour of Mr. Jacob Rayer, and from the neighbourhood of Bury gathered by W. Matthew, Esq. The last-mentioned gentleman suspects the radical leaves do not appear till within fifteen or twenty days of its flowering, which happens early in July.

This species is remarkable for having apparently but one







O P H R Y S anthropophora.*Green Man Orchis.***G Y N A N D R I A Diandria.**

GEN. CHAR. *Nectary consisting of a lip only, slightly carinated at the back.*

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip linear, in three divisions, the middlemost elongated and cloven.

SYN. *Ophrys anthropophora.* *Linn. Sp. Pl.* 1343. *Huds. Fl. An.* 390. *Witb. Bot. Arr.* 991. *Reld. Cantab.* 338.

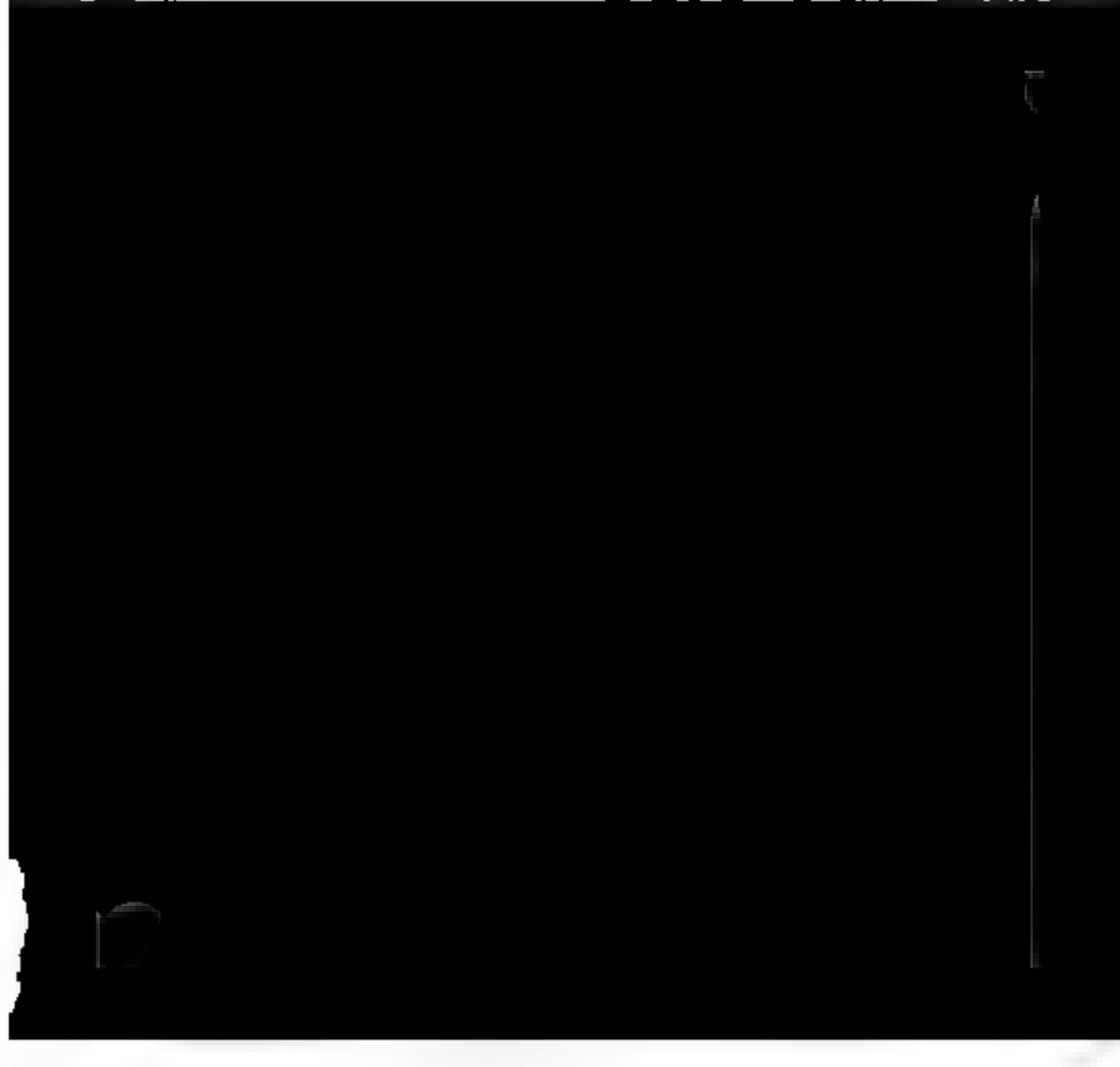
Orchis anthropophora oreades. *Raii Syn.* 379. *Column. Ecpbr.* 1. 320. f. 1. good.

F O U N D in chalk pits, hedges, and by road sides in a chalky soil, in various parts of England, very frequently in Kent; flowering in June. It is rather singular than strikingly beautiful in appearance, and chiefly remarkable for the figure of a naked man represented by the lip of its flower; the petals (which are often brownish) forming a kind of cap or helmet to the figure, as in the Military Orchis, fig. 16. The middle segment of the lip, however, is merely bifid, without any small intermediate tooth.

Columna has given a very good figure and description of this Ophrys in his *Ephrasis* above quoted, and claims the honour of being the first who has mentioned it. It has ever since been much celebrated, and is one of those species which Linneus tells us every body who was curious in plants, when he was at Paris, went from thence to Fontainebleau to see in flower, the neighbourhood of that place abounding with this tribe of plants.



13





—

O P H R Y S *muscifera.**Fly Orchis.***G Y N A N D R I A** *Diandria.*

GEN. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip somewhat convex, downy above, in four straight divisions.

SYN. *Ophrys muscifera.* *Huds. Fl. An.* 391. *Reb. Cont.*

339.

O. myodes. *Wittb. Bot. Arr.* 992.

O. insectifera α (*myodes*). *Linn. Sp. Pl.* 1343.

O. myodes major. *Raii Syn.* 379.

FOUND in meadows and pastures on a chalky soil, but not very common. It is most plentiful in Kent and Cambridgeshire, and has also been gathered near Tacolnestone church in Norfolk, and about Bungay in Suffolk; flowering in May and June.

No wonder the fly, the bee, and the spider orchis should have engaged the attention of all who were curious about



v





O P H R Y S . apifera.

*Bee Orchis.***G Y N A N D R I A Diandria.**

GEN. CHAR. *Nectary consisting of a lip only, slightly carinated at the back.*

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip roundish, convex, downy above, in five inflexed divisions, the terminal one acute and recurved.

SYN. *Ophrys apifera.* *Huds. Fl. An. 391.* *Curt. Lond. fasc. 1. t. 66.* *With. Bot. Arr. 993.* *Rell. Cant. 339.* *Sibtb. Ox. 13.*

Orchis fuciflora galea & alis purpurascensibus. *Raii Syn. 379.*

FOUND occasionally in pastures, chiefly on a chalky soil, and sometimes in great plenty, flowering about July.

Mr. Hudson has justly discriminated the three British species of insect-like Orchises, 2 of which we have already figured tab. 64 and 65. That now before us is most allied to the *apifera*, from which it differs in having the 3 larger petals reddish, but more especially in the very different form of the

367







—

O P H R Y S aranifera.*Spider Orchis.***G Y N A N D R I A Diandria.**

GEN. CHAR. Nectary consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip roundish, convex, hairy above, in three divisions, turned in at the margin, and notched at the tip.

STR. *Ophrys aranifera.* *Huds. Fl. An.* 392. *Wab.*
Ecc. Afr. 994. *Reib. Can.* 340.

Orchis sive *Testiculus* *sphegodes hirsuto flore.* *Rau*
Syn. 380.

THIS, with us the most uncommon of the insect-bearing Orchises, was gathered near Bury by Sir T. G. Cullum, Bart. as well as by W. Matthew, Esq. and we are obliged to both these gentlemen for fine specimens of it, flowering in

April. Mr. J. S. Rau, of R. H. Court, Fleet-street, to whom

A. C. & C. A. - L. - .

6.5







M A L A X I S paludosa.

*Marsh Tway-blade.**G R N A N D R I A Diandria.*

GEN. CHAR. *Nectary* of one hollow, heart-shaped, erect leaf, embracing the organs of fructification. *Corolla* reversed.

SPEC. CHAR. Stalk pentagonal. Leaves several, spatulate, rough at the tip.

SYN. *Malaxis paludosa.* *Swartz, Stockholm Trans. for 1789, p. 127. t. 6. f. 2.*

Ophrys paludosa. *Linn. Sp. Pl. 1341. Hudf. Fl. An. 389. Witb. Bot. Arr. 989. Relb. Cant. 337. Rose's Elem. (App.) 450. t. 2. f. 3.*

Orchis minima bulbosa. *Raii Syn. 378.*

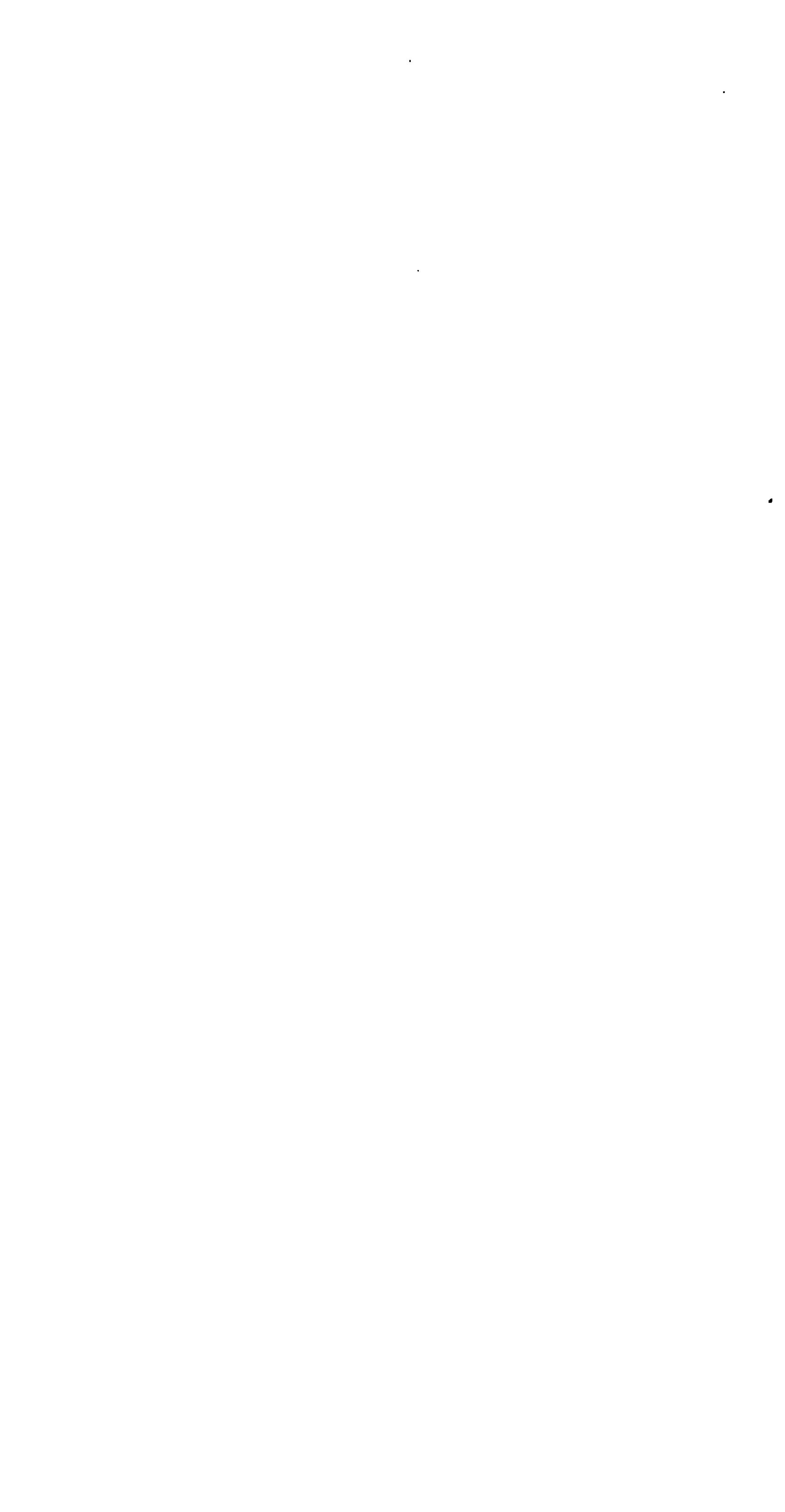
A NATIVE of turf-y bogs on the north side of Norwich, and in some other parts of England; communicated from the neighbourhood of Potton, Bedfordshire, by the Rev. Mr. Charles Abbot of Bedford. It flowers in July, and is the smallest British plant of this tribe.

However averse to unnecessary innovation, it is impossible to refuse our assent to the establishment of this genus as characterised by Dr. Swartz; happy would it be if every genus in Orchidæ were as clear. Yet it appears that able botanist has not paid due attention to the corolla being reversed (*reversely*, the odd petal (of the three external ones) being the



v





S E R A P I A S latifolia.

*Broad-leaved Helleborine.**GYNANDRIA Diandria.***GEN. CHAR.** *Nectary* ovate, gibbous, with an *ovate* lip.**SPEC. CHAR.** Roots creeping. Leaves ovate, embracing the stem. Flowers drooping. Lip entire, pointed, shorter than the petals.**SYN.** *Serapias latifolia.* *Linn. Syst. Veg. ed. 14.* 814.*Huds. Fl. An.* 393. *Wittb. Bot. Arr.* 997. *Ligbtf.**Scot.* 526. *Rclb. Cant.* 340. *Sibtb. Oxon.* 13.**S.** *Helleborine a.* *Linn. Sp. Pl.* 1344.*Helleborine latifolia montana.* *Raii Syn.* 383.

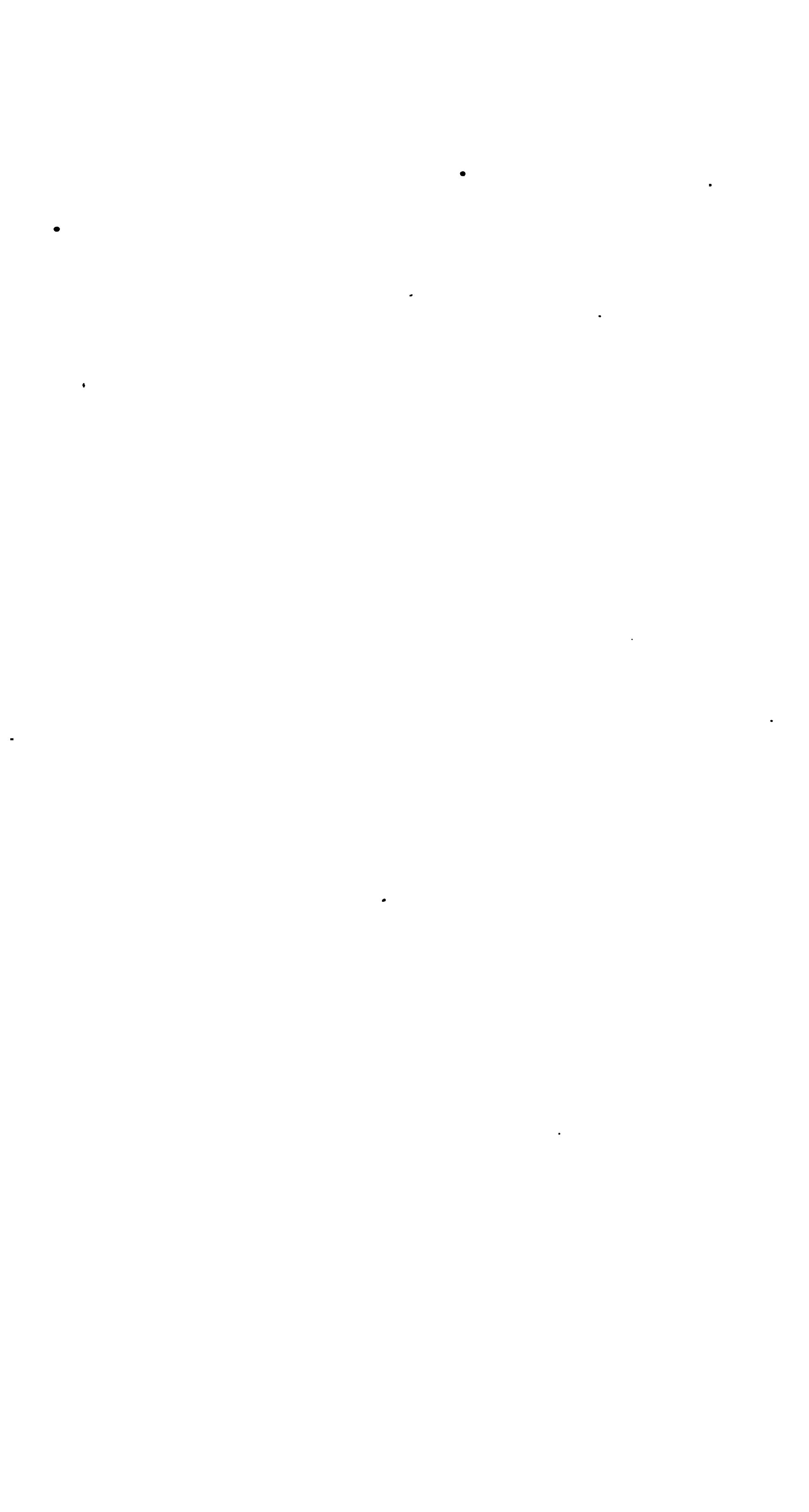
NO T uncommon in shady woods, especially in the mountainous parts of this kingdom; we are obliged to the Countess of Aylsford for this specimen. It flowers in July or August.

Root perennial, creeping horizontally, throwing out many long fibres, fleshy, but by no means bulbous, thriving in the moist black vegetable mould of damp woods. Stem simple,

erect, near two feet high, clothed with several alternate ovate







S E R A P I A S *palustris.*
Marsh Helleborine.

GYNANDRIA Diandria.

GEN. CHAR. *Nearly* ovate, gibbous, with an ovate lip.

SPEC. CHAR. Roots creeping. Leaves lanceolate, embracing the stem. Flowers drooping. Lip crenate, obtuse, equal to the petals.

SYN. *Scrapias palustris.* *Lightf. Fl. Scot.* 527.

S. latifolia γ, *palustris.* *Huds. Fl. An.* 393.

S. longifolia. *Linn. Syst. Veg. ed. 14.* 815. *Willk.*

Bot. Arr. 998. *Rehb. Cant.* 341. *Sibb. Oxon.* 14.

Helleborine palustris nostras. *Raii Syn.* 384.

IN swampy meadows and on watery commons in various parts of England, not very unfrequent; we doubt its being to be met with in any other kind of situation. The flowers are in perfection about July or August.

Root creeping, fleshy, perennial. Stem erect, simple, 12 or 18 inches high, lower leaves ovate, often purple at the back; upper ones lanceolate, erect; all embracing the stem, and ribbed. Spike erect. Bracteæ lanceolate, about equal to the germinæ. Flowers fewer and much larger than in the preceding species, drooping, with downy purple flower-stalks and







—

[29]

SERAPIAS grandiflora.
*Wax Orchid.**GYNANDRIA* *Linnae.*

Gen. CHAR. Nodding spike, gibbose, with an ovate lip.

Spec. CHAR. Root creeping. Leaves elliptico-lanceolate. Bracts larger than the germs. Flowers erect. Lip obtuse, rather shorter than the petals.

SYN. *Serapis grandiflora* *Linn. Fl. Scot.* 528.
Wilk. Bot. Arr. 1000. *Russ. Coss.* 341. *Sibth.*
Oxon. 14.

S. longifolia. *Huds. Fl. An.* 393.

Helleborine flower also. *Russ. Coss.* 383.

COMMUNICATED by the Rev. Mr. Baker, F. L. S. from Gloucestershire. It occurs in woods and thickets, chiefly in the midland counties, very rarely in Scotland, flowering in June.

Root long and creeping, perennial. Stem about a foot high. Leaves ribbed, various in breadth, but generally rather elliptical than lanceolate, their base half embracing the stem. Spike erect, of from three to eight large white, nearly upright flowers. Lower bracts like the leaves in form and size; the others gradually less, but none shorter than the germs, which is slender, and deeply furrowed. Petals but little ex-







— III —
III 2 1 2 2 1 2 2 ~~and~~

Non-annual Helianthus.

HYBRID HELIANTHUS.

Gen. Char. Flowers yellow, glaucous, with an ovate lip.

Spec. Char. Leaf serrated. Leaves sword-shaped.

Bracts much longer than the petioles. Flowers annual. Lip serrated, but as long as the petals.

Spec. *S. annuus* *multiflorus*. *Linn.* *Sp. Pl.* 14. 815,
(synonyms excluded). *Walt.* *Pl. Fl. Dan.* 1. 506.

S. X *Argenteo-flavus*. *Linn.* *Suppl.* 424.

S. integrifolia *p.* *Ehrh.* 334.

Helianthus *foliis primis rotundis acutis.* *Ran.*
Iyz. 334.

FOUND on the top of Abberley Hill, Worcestershire, and also in Wye forest in the same county, by Walter Michael Moseley, Esq. of Graftonport, to whom we are obliged for wild specimens of this rare plant, which completes our history







[437]

S E R A P I A S rubra.

*Purple Helleborine.**GYNANDRIA Diandria.***GEN. CHAR.** Nectary ovate, gibbous, with an ovate lip.**SPEC. CHAR.** Root creeping. Leaves lanceolate.

Bracteæ longer than the germen. Flowers erect.

Lip acute, marked with undulating lines.

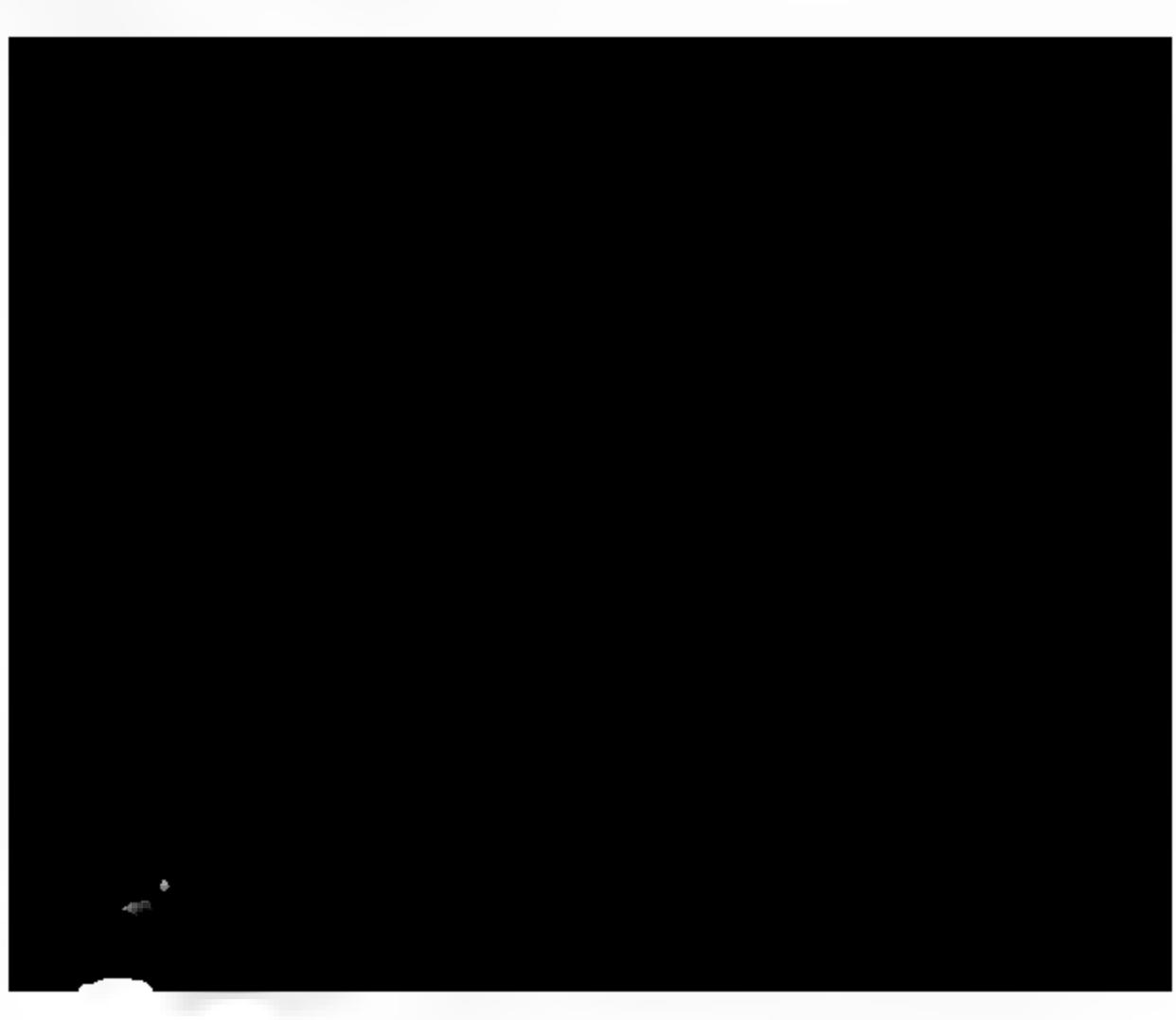
SYN. *Serapias rubra.* *Linn. Syst. Veg. ed. 14.* 816.*With. 42. Fl. Dan. t. 345.**S. longifolia* ♂. *Huds.* 394.*S. grandiflora* ♂. *With. ed. 2.* 1001.*Helleborine montana angustifolia purpurascens.* *Raii Syn.* 384.*Epipactis N.* 1299. *Hall. Hist. v. 2.* 156. *t. 42,*

DILLENIUS, in his edition of Ray's Synopsis, inserts this as a native of Ireland, on the authority of Plukenet; Hudson says it grows in the north part of Yorkshire; but Dr. Withering, who in his third edition has first rightly explained the species of *Serapias*, mentions the *rubra* as a very doubtful native. We are enabled to decide the question by means of this wild specimen, gathered last June on a steep stony bank, sloping to the south, on Hampton Common, Gloucestershire, by Mrs. Smith of Barnham House in that neighbourhood, who observed about a dozen of the plants within a small space. In the following month we received specimens gathered in another part of the same county by the Rev. Mr. Baker.

This is unquestionably a most distinct species, though confounded by Hudson with *grandiflora* (see our *t. 271.*) and *exsifolia*; nor were these plants ever well understood by Linnaeus.

The root creeps horizontally, producing many long simple fibres. Stem perfectly erect, a foot high, leafy, downy; compressed, and with fewer leaves in the upper part. Leaves a little spreading in various directions, lanceolate, pointed, ribbed. Spike of from three to six upright purple flowers. Bracteæ lanceolate; the lowermost sometimes as long as its corresponding flower, the rest but a little longer than the germen, sometimes rather shorter. Germen slender, downy. Petals all directed upwards, ovate, very much pointed. Nectary with a short blunt projection behind, its lip about equal to the petals in length, white tipped with purple, lobed on each side at the base, marked with yellow elevated undulating lines, and terminating in a sharp point; by which mark it is certainly distinguished, as Haller observes, from *S. grandiflora*.







1

[1]

CYPRIPEDIUM Calceolus.

Ladies Slipper.

GYNANDRIA Diandria.

GENERIC CHARACTER. *Nectarium* large, inflated,
and hollow.

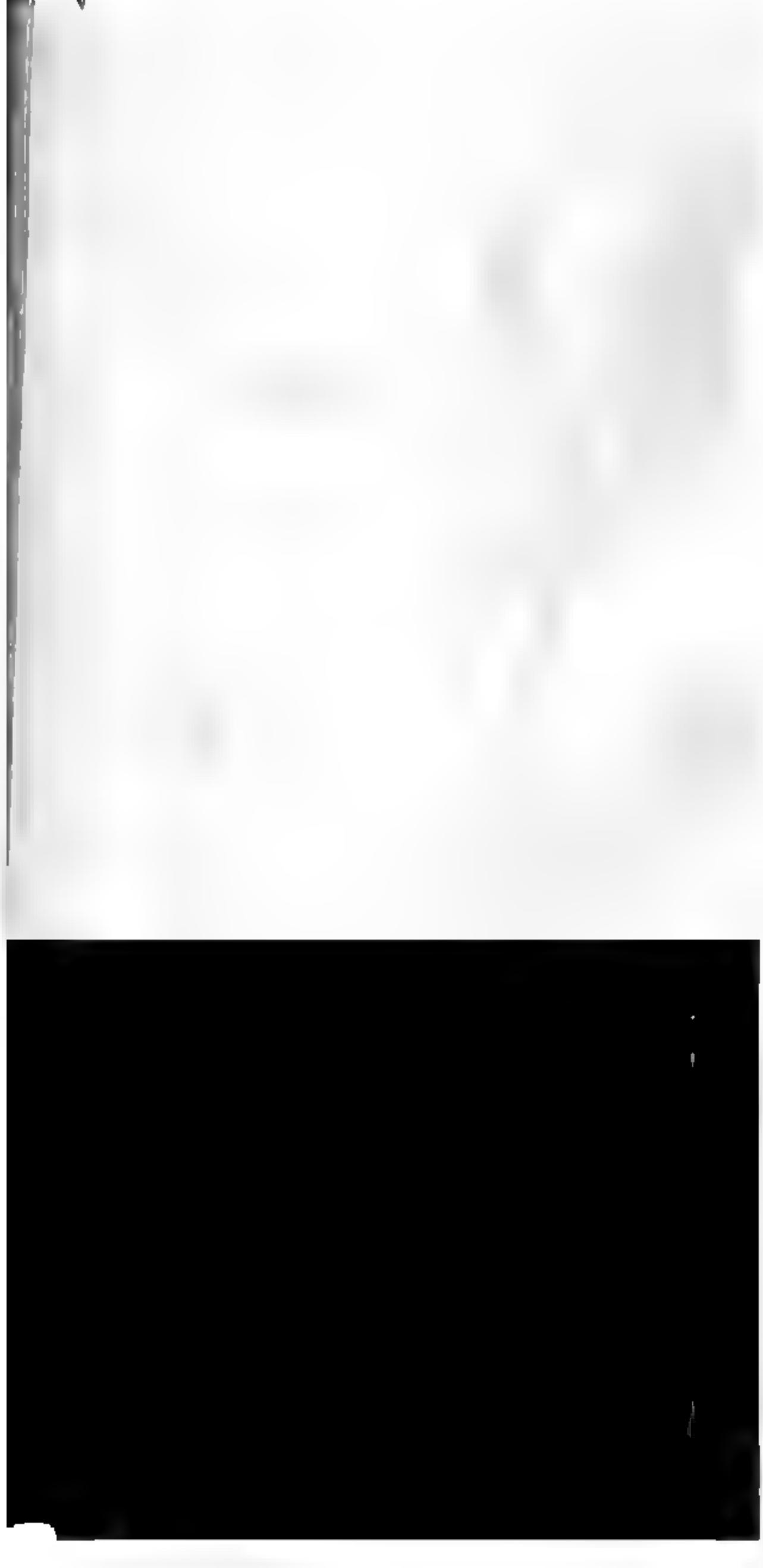
SPECIFIC CHAR. Roots fibrous. Leaves ovato-lanceo-
late, growing on the stem. Flower with four petals.

SYN. *Cypripedium Calceolus.* *Linn. Sp. Pl.* 1346.
Huds. Flo. An. 392. *Witbering's Bot. Arr.* 1001.

Calceolus Mariae. *Raii Syx.* 385.

If the beauty or scarcity of a plant, or the singularity of its
structure, entitle it to our notice, the Ladies Slipper certainly
merits the first place in a work on British plants. It may indeed
be reckoned the queen of all the European Orchideæ. Accord-
ingly it has not only been admired and cherished by the scientific
botanist, but it has among gentlemen always been held at the







ARISTOLOCHIA Clematitidis.

*Common Birthwort.**GYNANDRIA Herandria.*

GEN. CHAR. *Stigmas* 6. *Cal.* none. *Corolla* of one tongue-shaped, entire petal. *Capsule* inferior, of 6 cells.

SPEC. CHAR. Leaves heart-shaped. Stem erect. Flowers in axillary clusters.

SYN. Aristolochia Clematitidis. Linn. Sp. Pl. 1364. Huds. Fl. An. 394. With. Bot. Arr. 1003. ed. 3. 360. Relh. Cant. 342. Sibth. Ox. 112. Dicks. Dr. Pl. 14.

RAY appears to have considered this plant as too doubtful a native to be admitted into his *Synopsis*, but he could not be uninformed of its being found, apparently in a state of nature, in many parts of England. It is generally observed about the ruins of nunneries, as at Godstow Oxfordshire, and Carrow Abbey near Norwich, from which last place our specimen was sent by the Rev. Mr. Sutton. The several kinds of *Aristolochia* were formerly a principal remedy for some female disorders.

The root of this species is long, slender, creeping, and perennial. Stems many, nearly 2 feet high, erect, round, striated, smooth, a little zigzag. Leaves alternate, on footstalks, without stipulæ, heart-shaped, entire, smooth, broad, with many strong veins, the lateral nerves branching in a pedate manner. Flowers 5 or 6 in a cluster from the bosom of each leaf, on shortish stalks, erect, pale yellow, appearing from July to September, of a very singular form, consisting of one petal globose at the base with 6 furrows, then funnel-shaped and terminating in a tongue-like figure. In the bottom of this petal stand the stamens and styles, forming a globular body all together, but the germen is below the corolla. The very short thick stamens do really grow out of the style (which is likewise short and thick), so that this genus is truly *gynandrous*, and we see no reason for abolishing that class merely because some plants have been erroneously referred to it. The style appears to us simple, with 6 stigmas, so that we have ventured in that respect to alter the Linnean character. Like other vegetables that increase much by root, it rarely ripens its fruit.







—

[1844]

ZANNICHELLIA palustris.

*Horned Pondweed.**MONOECIA Monandria.*

GEN. CHAR. Male, *Cal.* none. *Cor.* none. *Stam.* Filament solitary, elongated, erect: *anther* ovate, erect. Female, *Cal.* of 1 leaf. *Cor.* none. *Germens* 4 or more. *Seeds* as many, stalked. *Stigmas* peltate.

SPEC. CHAR. Anther of four cells. *Stigmas* entire.

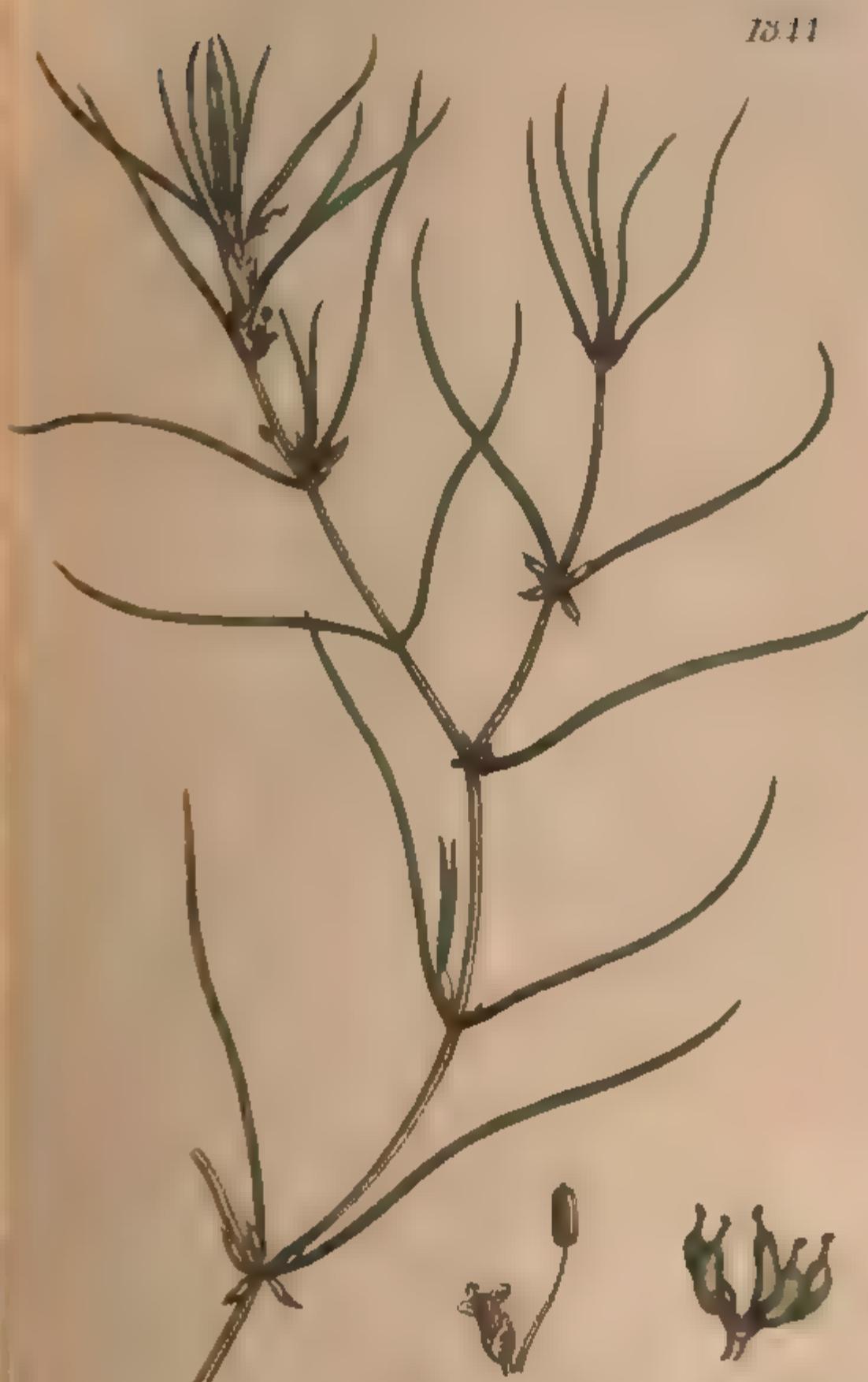
SYN. *Zannichellia palustris.* *Linn. Sp. Pl.* 1375. *Sm. Fl. Brit.* 955. *Huds.* 397. *With.* 6. *Hull.* 202. *Reh.* 358. *Sibth.* 3.

Aponogeton aquaticum graminifolium, staminibus singularibus. *Raii Syn.* 135.

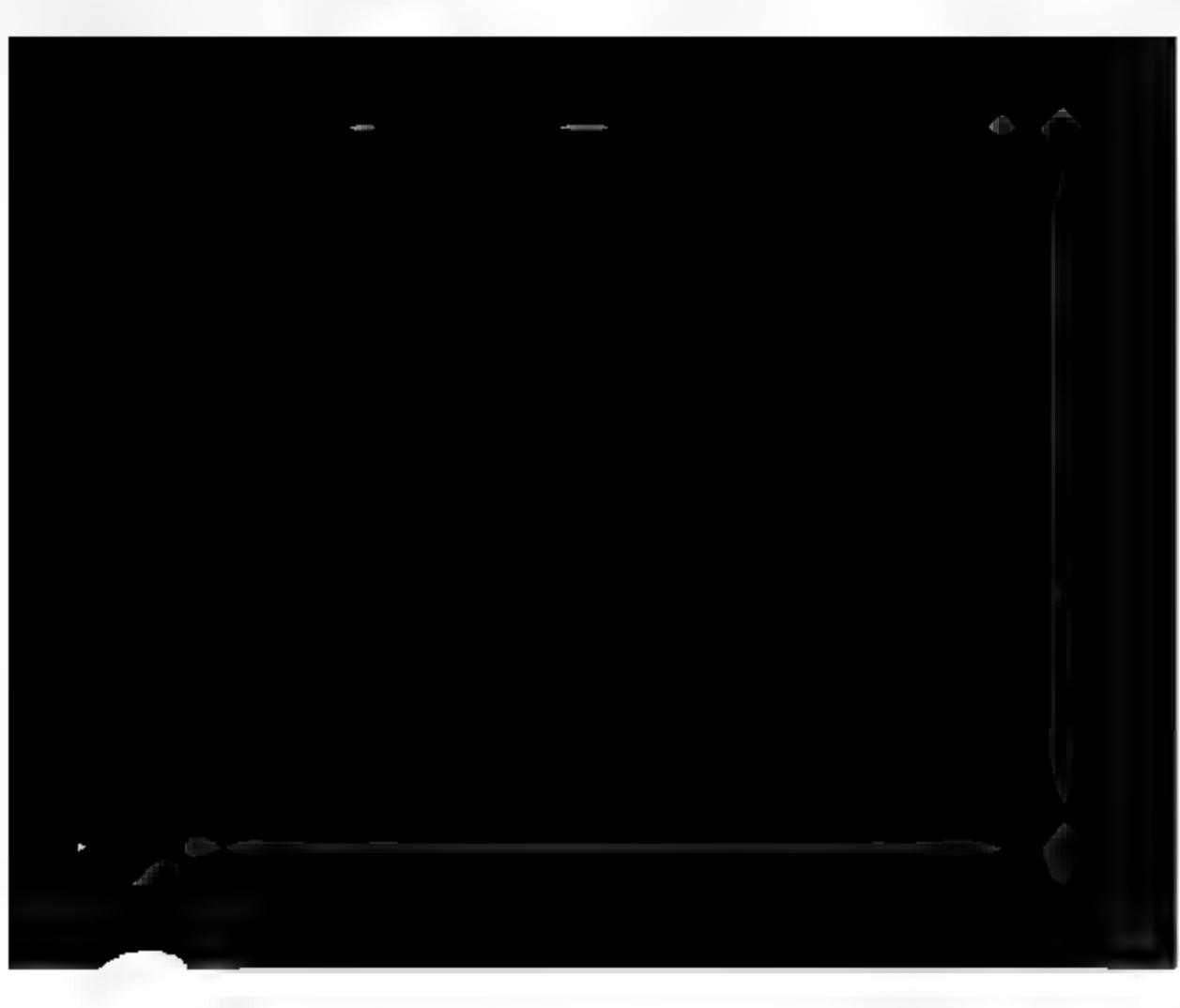
MICHELI named this genus in honour of a Venetian apothecary, whom he greatly celebrates for his knowledge and zeal with regard to natural history, especially marine plants and animals. He describes two species, one of which only has been met with in Britain.

This is an annual plant, occurring in ponds and ditches, as in Titchfield Golds, and many other places, in the summer season.

1841



Thlaspi glaucum L. var. ciliatum Cavanil.



TYPHA latifolia.

Great Cat's-tail or Reed-mace.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* cylindrical, hairy. *Antheræ* about 3 together on each filament.

Female, *Catkin* cylindrical. *Seed* 1, on a feathered stalk.

SPEC. CHAR. Leaves somewhat sword-shaped. Male and female catkins close together.

SYN. *Typha latifolia.* *Linn. Sp. Pl.* 1377. *Sm. Pl. Brit.* 959. *Huds.* 400. *With.* 111. *Hull.* 203. *Reh.* 360. *Sibth.* 25. *Abbot.* 199.

T. major. *Curt. Lond. fasc. 3. t. 61.*

Typha. Raii Syn. 496.

FREQUENT in pools, ditches and about the margins of slow streams, growing in the water, and familiar to the most casual observer by its tall stems and great mace-like brown spikes, which flower in July. Some persons mistake it for the Bull-rush, *t. 666.*

The creeping perennial roots run deep into the mud, and







TYPHA angustifolia.*Lesser Cat's-tail or Reed-mace.*

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* cylindrical, hairy. *Antheræ* about 3 together on each filament.

Female, *Catkin* cylindrical. *Seed* 1, on a feathered stalk.

SPEC. CHAR. Leaves flattish, semicylindrical beneath. Catkins a little distant; leafless.

SYN. *Typha angustifolia.* *Linn. Sp. Pl.* 1377. *Sm. Fl. Brit.* 959. *Huds.* 400. *With.* 111. *Hull.* 203. *Reh.* 360. *Abbot.* 199. *Fl. Dan.* t. 815.

T. minor. *Curt. Lond. fasc.* 3. t. 62.

T. palustris media. *Raii Syn.* 436.

MUCH more rare than the last. Curtis found it in the middle of Woolwich Common. We have observed it in clay-pits in several parts of Norfolk and Suffolk, but scarcely in any other county. It flowers in July.





TYPHA minor.
Dwarf Cat's-tail or Reed-mace.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* cylindrical, hairy. *Anthers* about 3 together on each filament.

Female, *Catkin* cylindrical. *Seed* 1, on a feathered stalk.

SPEC. CHAR. Leaves linear, convex beneath. *Catkins* a little distant; the male leafy; female short and turgid.

SYN. *Typha minor.* *Sm. Fl. Brit.* 960. *Bauh. Hist.* v. 2. 540. *Lob. Ic.* 81.

T. angustifolia β. *Linn. Sp. Pl.* 1378. *Huds.* 400.

T. palustris minor. *Dill. in Raii Syn.* 436.

T. palustris minima, dupli clavâ. *Moris. Sect.* 8. *t. 13. f. 3.*

MR. DANDRIDGE is said by Dillenius to have found this on Hounslow heath; and as the plant was well known and distinguished by botanists of that time, though confounded by Linnaeus with *T. angustifolia*, we presume there could be no mistake about it. We have never seen any other than Genevan specimens; but having lately obtained more perfect ones than are described in the *Fl. Brit.* or any other work, those hitherto figured or mentioned having been defective in the

2457



Var. 1762 Published by G. Edwards London

V

C



SPARGANIUM ramosum.*Branched Bur-reed.***MONOECIA Triandria.****GEN. CHAR.** Male, *Cal.* 3-leaved. *Cor.* none.Female, *Cal.* 3-leaved. *Cor.* none. *Drupa* dry, with 1 seed.**SPEC. CHAR.** Leaves triangular at the base, their sides concave. Common flower-stalk branched. Stigma linear.**SYN.** *Sparganium ramosum.* *Sm. Fl. Brit.* 961. *Huds.* 401. *Witb.* 112. *Hull.* 203. *Sibtb.* 25. *Curt. Lond. fasc.* 5. t. 66. *Raii Syn.* 437.*S. erectum.* *Linn. Sp. Pl.* 1378. *Rehb.* 348. *Abbot.* 200.**C**OMMON in ditches and about the banks of rivers, flowering in July and August.

The root is perennial and creeping. Stem upright, about three feet high, round, leafy, smooth, divided at the top into many alternate, slightly zigzag, flowering-branches. Radical leaves sword-shaped, erect, smooth, entire; at their base trian-







SPARGANIUM simplex.

*Unbranched Upright Bur-reed.**MONOECIA Triandria.***GEN. CHAR.** Male, *Cal.* 3-leaved. *Cor.* none.Female, *Cal.* 3-leaved. *Cor.* none. *Drupa* dry,
with 1 seed.**SPEC. CHAR.** Leaves triangular at their base, their
sides flat. Common flower-stalk simple. Stigma
linear.**SYN.** *Sparganium simplex.* *Sm. Fl. Brit.* 962. *Huds.*
401. *Witb.* 112. *Hull.* 203. *Sibtb.* 25. *Abbot.*
200. *Curt. Lond. fasc.* 5. t. 67. *Dickf. H. Sicc.*
fasc. 6. 7.*S. erectum* β . *Linn. Sp. Pl.* 1378.*S. non ramosum.* *Raii Syn.* 437.

NOT very rare in pools and ditches, particularly where the soil is gravelly, flowering in July and August.This is smaller than the more common *S. ramosum*, of which it has been considered as a variety, but certainly without reason. Mr. Curtis has well remarked that the sides of the triangular bases of the radical leaves in this are flat or level, not







[273]

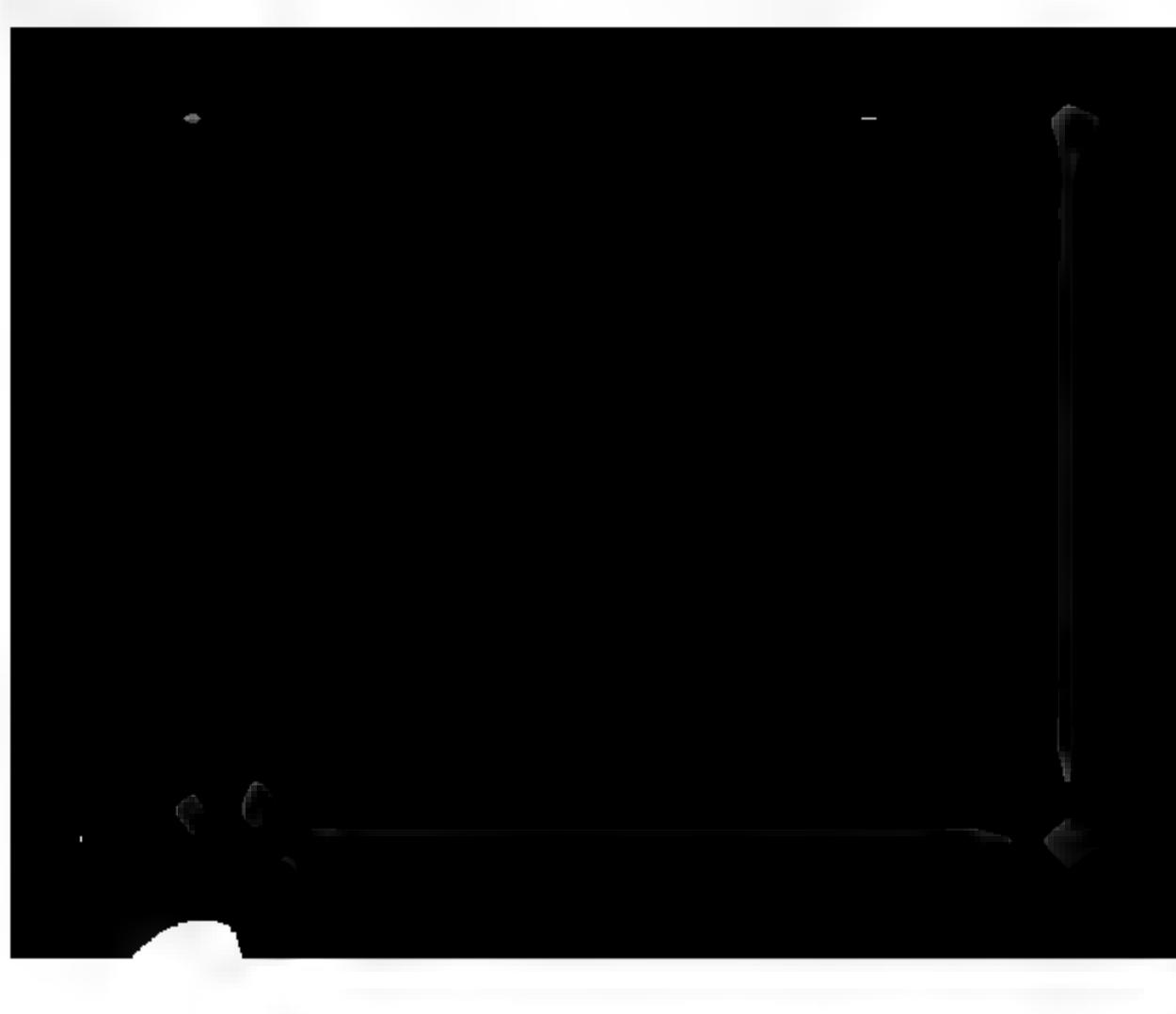
SPARGANIUM natans.

*Floating Bur-reed.**MONCECIA Triandra.*GEN. CHAR. Male, *Cal.* 3-leaved. *Cor.* none.Female, *Cal.* 3-leaved. *Cor.* none. *Drupe* dry,
with 1 seed.SPEC. CHAR. Leaves drooping, flat. Heads of flowers
in a simple spike, most of them accompanied by
leaves. Style not longer than the germen.SYN. *Sparganium natans.* *Linn. Sp. Pl.* 1378.*With. Bot. Arr.* 1025. *Fl. Dan.* t. 260.*S. simplex, β.* *Huds. Fl. An.* 401.*S. minimum.* *Raii Syn.* 437.

SENT by the Rev. Mr. Hemist from Burwell fens, Cambridgeshire. It prefers a muddy or clay soil, flowering in July.

Root perennial, creeping, with long fibres, running deep into the muddy bottoms of ditches or slow streams. Stems ascending, round, leafy. Leaves linear, narrow, thin and almost pellucid, flat; sheathing and a little channelled towards the base, but without any degree of *carina* or mid-rib; the lowermost long and floating, the rest gradually shorter. Flowers from the bosoms of the upper leaves, in 3 or 4 solitary little round heads: we can by no means comply with Linnaeus in calling them *amenta*, with the definition and nature of which they do not agree: they are really *capitula*. The







—

C A R E X dioica.

*Small Carex.**MONOCIA Triandra.***GEN. CHAR.** Male, Catkin imbricated. Cal. of 1 scale.

Cor. none. Female, Catkin imbricated. Cal. of 1 scale. Cor. inflated, permanent. Seed triangular, invested with the corolla.

SPEC. CHAR. Spikes simple, dioecious. Corolla ribbed, finely serrated.**SYN.** *Carex dioica.* *Linn. Sp. Pl.* 1379. *Huds.* 401. *Wittb.* 86. *Reib.* 349. *Sibb.* 26. *Gooden. Tr. of Linn. Soc. v.* 2. 139.*Gamen cyperoides minimum, Ranunculi capitulo rotundo.* *Raii Syn.* 425.*G. cyperoides minus, Ranunculi capitulo longiore.* *Raii Syn.* 425.

FOUND in spongy bogs not unfrequently, though it may easily be overlooked. It flowers in May, ripening its seed in June or July, when its round heads are more conspicuous than the leaves.







CAREX Davalliana.

Prickly Separate-headed Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Spikes simple, dioecious. Fruit lanceolate, triangular, ribbed, deflexed; its angles rough towards the summit.

SYN. *Carex Davalliana.* *Sm. Tr. of L. Soc.* v. 5. 266. *Fl. Brit.* 964. *Hull. ed.* 2. 268. *Willd. Sp. Pl.* v. 4. 208.

C. dioica B. *Sm. Fl. Brit.* 964.

C. dioica. *Huds.* 401.

Gramen cyperoides minus, ranunculi capitulo longiore.

Raii Syn. 425.

Cyperoides parvum &c. *Mich. Gen.* 56. n. 1. t. 32. f. 1.

FIRST made known to us, as a British plant, by Professor J. Beattie, who found it in Mearns-shire. Mr. Groult next gathered it on Lansdown near Bath, from whence Mr. E. Forster communicated our specimens, the ripe fruit only being added from one of Mr. Davall's own. Mr. Forster informs us it grows on the slope of a hill on which there is a clump of firs, about a mile and a quarter from Bath. We are also greatly obliged to him for suggesting Ray's and Hudson's synonyms, in consequence of which the long-unascertained *C. capitata* of the latter, certainly not that of Linnaeus, turns out the real *dioica*, t. 543. Mr. Templeton has found the *Davalliana* near Belfast. It is much the most common of the two in Switzerland. We cannot but wonder that the observing Mr. Wahlenberg still esteems them but varieties of each other.

The root of this, as Willdenow well observes, is tufted, not creeping; stem rough, not smooth. The spikes are much longer than in *dioica*, and the long, reflexed, strongly ribbed seed-covers, roughish only at the angles near the top, not serrated, are abundantly characteristic.

2123



Reproduced by J. Murray Smith





C A R E X pulicaris.
Flea Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none.—Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Spike simple, androgynous; the male flowers uppermost. Fruit spreading and reflexed, tapering at both ends. Stigmas two.

SYN. *Carex pulicaris.* *Linn. Sp. Pl.* 1380. *Gooden. Tr. of Linn. Soc.* v. 2. 142. *Sm. Fl. Brit.* 965. *Huds.* 402. *Witb.* 86. *Hull.* 204. *Rehb.* 349. *Sibtb.* 26. *Abbot.* 203.

Gramen cyperoides minimum, seminibus deorsum reflexis puliciformibus. *Raii Syn.* 424.

THIS little Carex grows in spongy or muddy boggy places, flowering early in June, when it might be overlooked for the male plant of *C. dioica*, and in that state it is figured in *Fl. Dan.* l. 166. When in a week or two the fruit begins to ripen, all the female flowers spread widely, and at length become reflexed, the dark brown highly polished seed-cases giving the plant a singular and characteristic form which has



1051



1051 was published by the University, London



—

CAREX pauciflora.
Few-flowered Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Spike simple, of few flowers, the upper one male. Fruit spreading, awl-shaped. *Stigmas* three.

SYN. *Carex pauciflora.* *Lightf.* 543. *t.* 6. *f.* 2. *Sm. Fl. Brit.* 966. *Gooden. Tr. of L. Soc.* v. 2. 143. *With.* 87. *Huti.* 204. *Dicks. H. Sicc. fasc.* 1. 16. *Winch Guide,* v. 1. 83.

C. patula. *Huds.* 402 and 657.

C. Leucoglochin. *Linn. Suppl.* 413. *Ehrh. Phyt.* n. 8.

THIS rare little Carex had been found in no other part of Britain than Scotland, till Mr. Winch met with it in June 1903 in Northumberland. It grows on peat bogs, flowering early in that month.

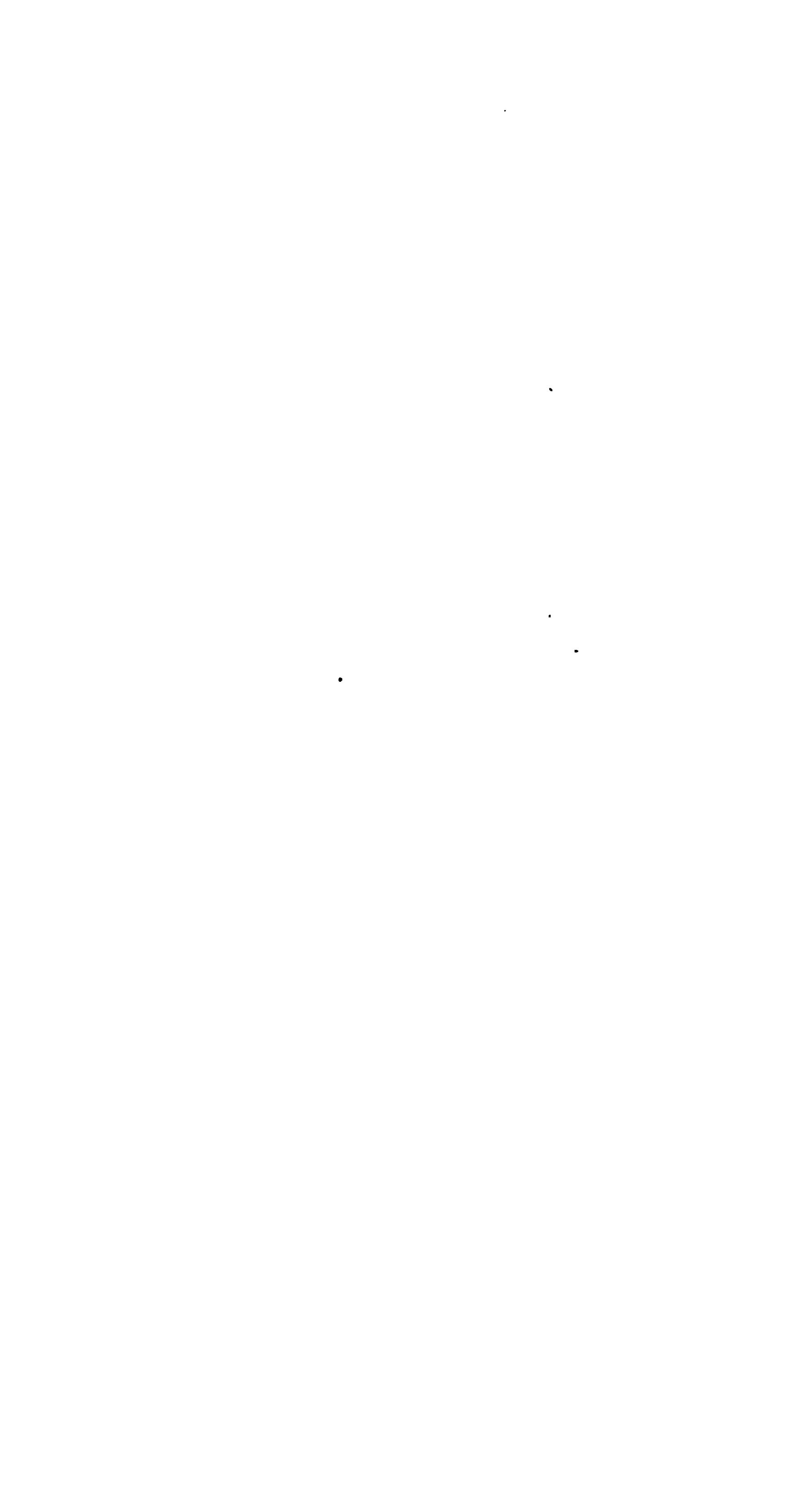
Root creeping, scaly. Stems from 3 to 5 inches high, erect, bowed at the base, smooth, obscurely triangular. Leaves about 2 embracing the base of each stem, channelled, smooth, much shorter than the stems. Spike solitary, erect, of from 4 to 6 flowers, of which the upper one only is a male, and upright; the rest are females, a little spreading, and at length reflexed. Scales lanceolate, of a pale rust-colour. Fruit of the same hue, tapering, somewhat triangular, furrowed. *Stigmas* three; Lightfoot says they are occasionally but two.

We prefer the original name of Lightfoot, to the hard Greek one, foisted into the *Supplementum Plantarum* by Ehrhart, as he superintended the press, without Lanzeus's knowledge.

2041



Sisyrinchium campestre





[806]

CAREX stellulata.

*Little Prickly Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, *Catkin imbricated. Cal. of 1 scale. Cor. none.* Female, *Catkin imbricated. Cal. of 1 scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.*

SPEC. CHAR. Spikelets three or four, remote, androgynous. Fruit divaricated, with an elongated undivided beak.

STR. *Carex stellulata. Gooden. Tr. of Linn. Soc. v. 2. 144. Sm. Fl. Brit. 966. Willd. 87. Hull. 204.*

C. muricata. Huds. 406. Ligbtf. 549. Reb. 350. Abbot. 202.

C. echinata. Sibb. 28.

Gramen cyperoides spicatum minimum, spica divisa, aculeata. Rott. Syn. 424.

NO T unfrequent in marshy, rather barren, ground, flowering in May and June.

Root fibrous; perennial, as usual with the Carex tribe. Stem from 6 to 12 inches high, erect, straight, simple, naked except at the base, triangular, the angles roughish, upwards



— 806 —



33. — *Polygonum perfoliatum* L.



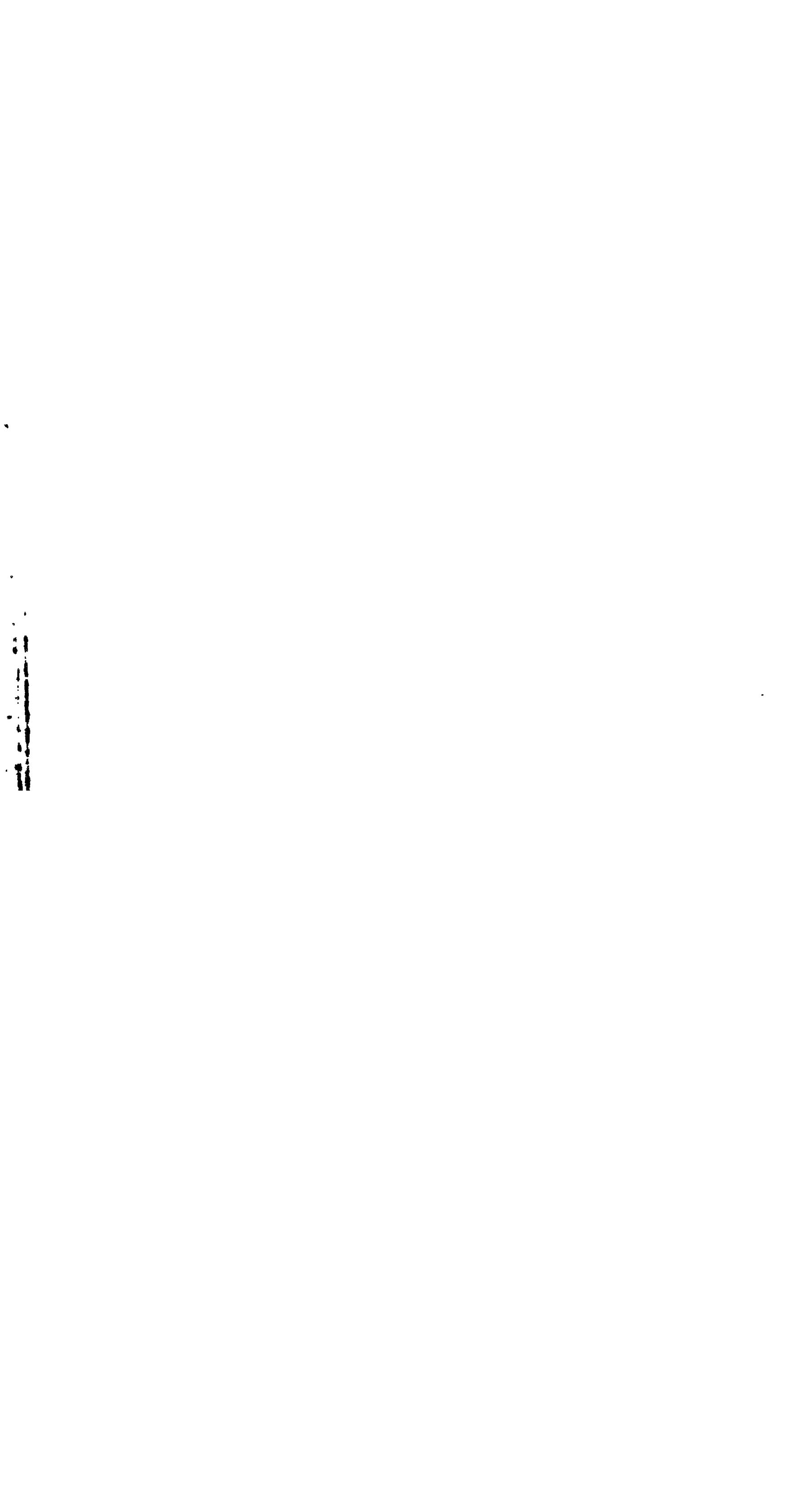


—

1280



Mr. J. C. Gray. Delighted by M. Smith. London.







1920



*Agrostis capillaris L. var. *Scutellata* L.*

[306]

CAREX ovalis.

*Oval-spiked, or Naked Carex.**MONCEIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* inflated, permanent. Seed triangular, invested with the corolla.

SPEC. CHAR. Spikelets about six, oval, close together, alternate. Scales lanceolate, equal to the capsule.

SYN. *Carex ovalis.* Gooden. *Tr. of Linn. Soc.* v. 2. 148.

C. leporina. Huds. *Fl. An.* 404. *With. Bot. Arr.* 1029.

Relh. Cant. Suppl. 1. 15. *Sibth. Ox.* 27.

Gramen cyperoides, spica e pluribus spicis mollibus composita. Raii *Syn.* 422.

GATHERED in Kensington Gardens, flowering in June. It is very common in wet marshy pastures.

Root perennial, creeping? Stem, erect, hollow, about a foot high, with 3 sharp rough angles. Leaves sheathing the lower part of the stem, and rising about equal to it in height, dark green, narrow, roughish on the edges and nerve, but less so than in most other species. General spike terminal, erect, composed of 5 or 6 upright oval spikelets, the largest of which is terminal. Bractæ solitary, lanceolate, at the base of each spikelet, the lowermost longer than the rest, and ending in a leafy point. In each little spike a few of the lower flowers are male, the rest female. Scales ovato-lanceolate, acute, equal to the corolla. Filaments longer than the scales. Style tumid at the base. Stigmas but two. Permanent corolla slightly notched, convex on one side, margin rough.

We beg leave to correct an inaccuracy in the concluding paragraph of the description of *Carex Pseudo-Cyperus*, t. 242. We have expressed ourselves as if Dr. Goodenough had called the corolla a capsule, in opposition to Linnaeus; whereas the truth is, Linnaeus carelessly uses *nectarium* and *cupula* indifferently for the same part, and our excellent friend, to whose labours in this genus the British botanist is so much indebted, takes the latter term merely as the least exceptionable. The part in question however is totally distinct from the germen and fruit, merely enveloping the seed, and is really a permanent corolla.







[832]

C A R E X remota.

Remote Carex.

MONOECIA Triandria.

Gen. CHAR. Male, *Catkin imbricated. Cal. of 1 scale.*
Cor. none. Female, *Catkin imbricated. Cal. of*
1 scale. Cor. none. Stigmas 2 or 3. Seed clothed
with a swelling tunic.

SPEC. CHAR. Spikelets solitary, remote, androgynous,
nearly sessile. Bracteæ very long, surmounting
the stem. Seed-tunic almost entire.

SYN. *Carex remota.* *Linn. Sp. Pl. 1383. Sm. Fl.*
Brit. 959. Gooden. Tr. of Linn. Soc. v. 2. 150.
Huds. 407. Willd. 88. Hull. 205. Reb. 351.
Sibth. 28. Abbot. 203.

C. axillaris. *Linn. Sp. Pl. 1382.*

Gramen cyperoides angustifolium, spicis parvis scf.
silibus in foliorum alis. *Raii Syn. 424.*

A NATIVE of moist groves, and banks of ditches in
shady situations, not unfrequent, flowering in May and June.

Root fibrous, perennial. Plant slender and weak, of a pale
whitish green. Stem about a foot high, triangular, and





—

CAREX axillaris.
Axillary Clustered Carex.

MONOECIA Triandria.

GAM. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale
Cor. none. Female, Catkin imbricated. *Cal.* —
1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed cloth* —
with a swelling tunic.

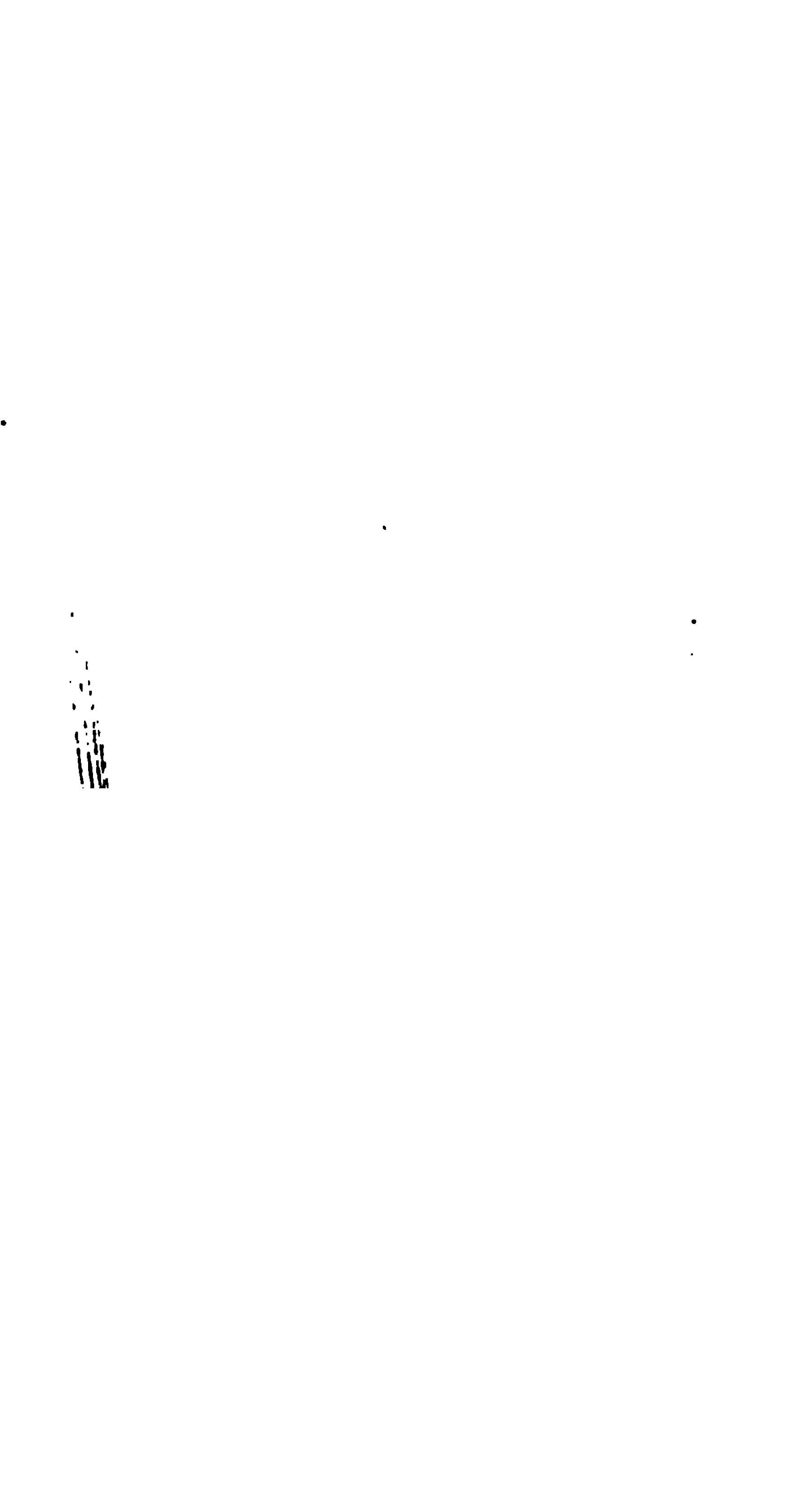
SPEC. CHAR. Spikelets remote, sessile, androgynous —
the lowermost compound. Bracteae very low. ~~g~~
Seed-tunic cloven at the point.

SYN. *Carex axillaris.* *Gooden. Tr. of Linn. Soc.* v. 2.
131. t. 19. f. 1. *See. Pl. Brit.* 970. *Wub.* ~~8~~ 9.
Hall. 205.

MR. CURTIS is said to have first discovered this species of Carex near Peterborough. Mr. Woodward sent our specimen from Earham, Norfolk, where it is found about wet ditch banks
on a soil of strong clay, flowering in the middle of June.

This has probably been often neglected as a legitimate variety
~~with~~ ~~it~~ ~~is~~ ~~so~~ ~~far~~ ~~from~~ ~~other~~ ~~species~~ ~~in~~ ~~being~~ ~~much~~







CAREX incurva.*Curved Carex.**MONOECIA Triandria.*

Gen. CHAR. Male, *Catkin imbricated. Cal. of 1 scale* —
Cor. none. Female, Catkin imbricated. Cal. of —
scale. Cor. none. Stigmas 2 or 3. Seed clothed —
with a swelling tunic.

Spec. CHAR. Spikelets clustered into a head, andro—
 gynous; the lower flowers female. Bracts mem—
 branous. Stem roundish, smooth. Leaves chan—
 nelled.

Syn. *Carex incurva. Lightf. 544. t. 24. f. 1. Sm.*
Fl. Brit. 971. Gooden. Tr. of Linn. Soc. v. 2.
152. Huds. 650. Willb. 89. Hull. 205.

DR. HOPE received specimens of this *Carex* from the
 "deep loose sand at the mouth of the water (or river) of
 Naver, and from near Skelberry in Dunrobin, in Shetland,"
 whence it found a place in the *Flora Scotica*. Professor Beattie
 has favoured us with specimens from near Aberdeen. It
 flowers in July.

The root creeps. The stems are mostly curved, 2 or 3



1. ~~Photographed by Dr. G. D.~~

997

6





[928]

CAREX arenaria.

Sea Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. Cal. of 1 scale. — .

Cor. none. Female, Catkin imbricated. Cal. of ~~3~~  of 1 scale. Cor. none. Stigmas 2 or 3. Seed clothed ~~with~~  with a swelling tunic.

SPEC. CHAR. Spikelets crowded, spiked, almost monocious. Bracteæ membranous; the lower ones ~~are~~ leafy. Stem triangular. Leaves flat.

Syn. *Carex arenaria.* Linn. Sp. Pl. 1381. Sm. Fl. Brit. 971. Gooden. Tr. of Linn. Soc. v. 2. 153. Huds. 405. Witb. 90. t. 20. Hull. 205. Dicks. H. Sicc. fasc. 5. 14. 

*Gramini cyperoidi ex monte Ballon simile humilis,
in maritimis et arenosis nascens.* Rott. Syn. 423. 

VERY common in the loose sand of the sea shore, where it may be found in flower in June and July.

The root creeps horizontally to a great extent, fixing itself by numerous fibres, and throwing up numerous stems, about a foot high, erect, except when they are overborne by the sand, naked, with 3 sharp angles, roughest in the upper part.







C A R E X intermedia.

*Soft Brown Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPBC. CHAR. Spikelets crowded into a common spike; the lower and upper ones female; the intermediate ones male. Stem acutely triangular, erect.

SYN. *Carex intermedia.* Gooden. Tr. of Linn. Soc. v. 2. 154. Sm. Fl. Brit. 972. With. 91. Hull. 205. Dicks. H. Sicc. fasc. 7. 15.

C. disticha. Huds. 403. Relh. 364. Sibth. 26. Abbot. 202.

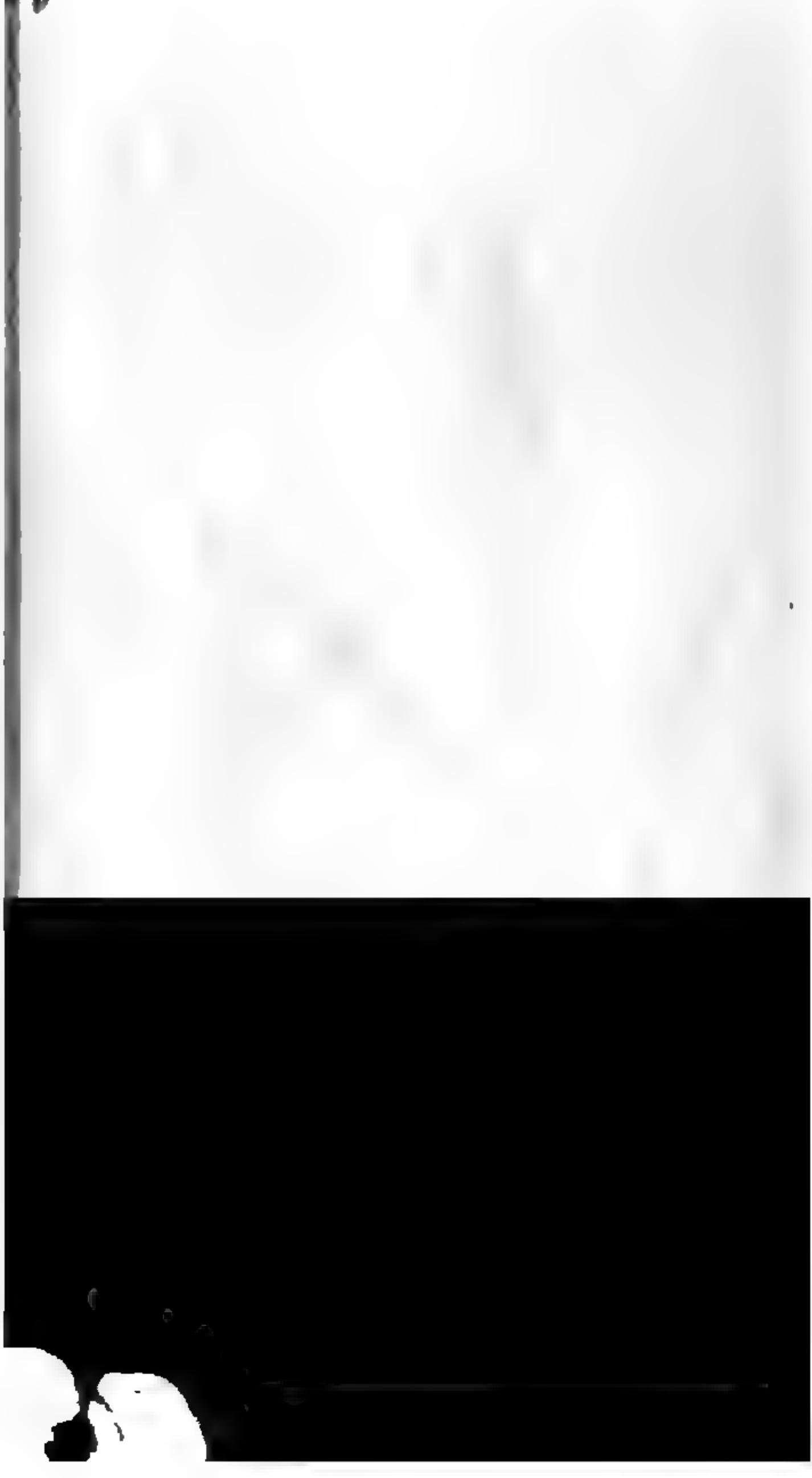
*Gramini cyperoidi ex monte Ballon simile; spică totā
e pluribus spicis compositā.* Raii Syn. 423.

NOT unsrequent in marshy meadows and other watery places flowering in May and June.

Root creeping, running deep into the ground. Stems upright, straight, 19 or 18 inches high, triangular, with very sharp, more or less unequal, angles, leafy at the bottom only. Leaves few, nearly upright, shorter than the stem, acute, almost flat, a little rough at the edges and keel. Spike oblong-bluntish, of a rusty brown, soft to the touch, but little compressed and by no means two-ranked, composed of numerous, crowded, ascending, ovate spikelets, of which 2 or 3 of the lowermost, and 1 or 2 of the uppermost, are almost entirely female, the rest nearly as completely, but not absolutely, male. In each spikelet the male flowers are always uppermost. Bracteas ovato-lanceolate, membranous, brown, white-edged; the lowest ending in a leafy point. Glumes ovate, acute, brown, with a pale nerve and white edge. Fruit ovate, acute, winged, rough-edged, with a cloven point. *Stigmas* 2, sometimes 3.



partim hirsuta





C

[1096]

CAREX *divisa.*

Bracteated Marsh Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Spike once or twice compound; spikelets all androgynous. Bracts leafy, etc. Fruit not spreading. Root creeping.

SYN. *Carex divisa.* *Huds.* 405. *Sm. Fl. Brit.* 97. *Gooden. Tr. of Linn. Soc.* v. 2. 157. t. 19. f.

Witb. 92. *Hull.* 205.

Gramen cyperoides ex monte Ballon, spica divisa.
Raii Syn. 423.

THIS rare Carex was gathered at Kennington by M~~...~~ Grout, a very accurate observer. It grows in marshy place~~...~~, flowering in May and June, and is most likely to be found n~~...~~ very far from the sea, or at least within the reach of the fresh water tide.

Root perennial, creeping horizontally to a considerable extent, black, strong and twisted. Stems upright, weak, above a foot high, naked, triangular, roughish in the upper part

1096



Nov 7 1862 Published by J. Sowerby London





4



C A R E X muricata.
Greater Prickly Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Spike oblong, once or twice compounded, prickly; spikelets androgynous. Fruit divaricated, pointed, cloven. Root fibrous.

SYN. *Carex muricata*. *Linn. Sp. Pl.* 1382. *Sm. Fl. Brit.* 974. *Gooden. Tr. of Linn. Soc.* v. 2. 158. *Witb.* 92. *Hull.* 205. *Rehb.* 364.

C. spicata. *Huds.* 405. *Sibtb.* 27. *Abbot.* 201. *Lightf.* 548.

Gramen cyperoides spicatum minus. *Rau Syn.* 424.

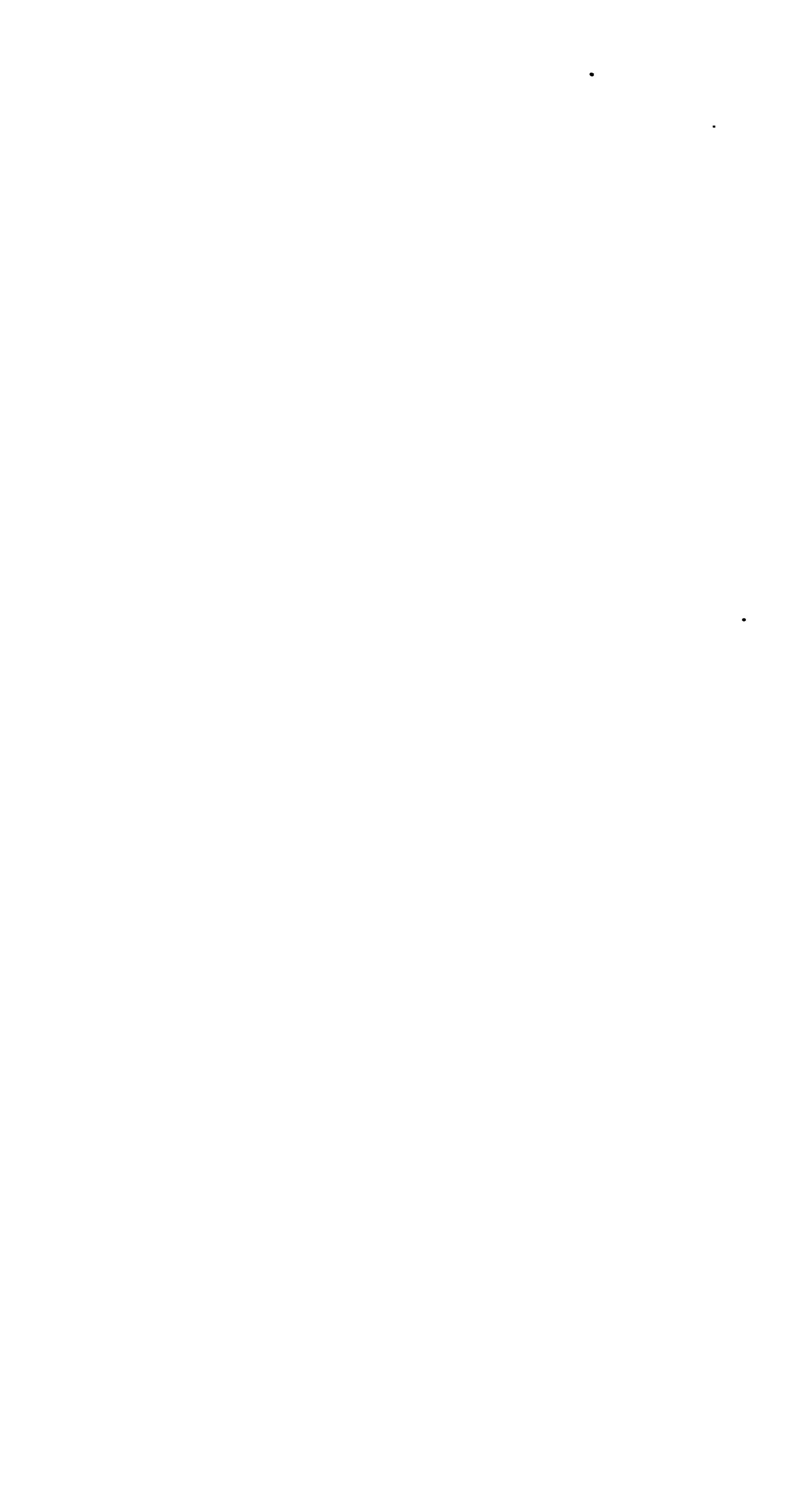
FREQUENT in rather moist pastures and shady places, flowering in May or June.

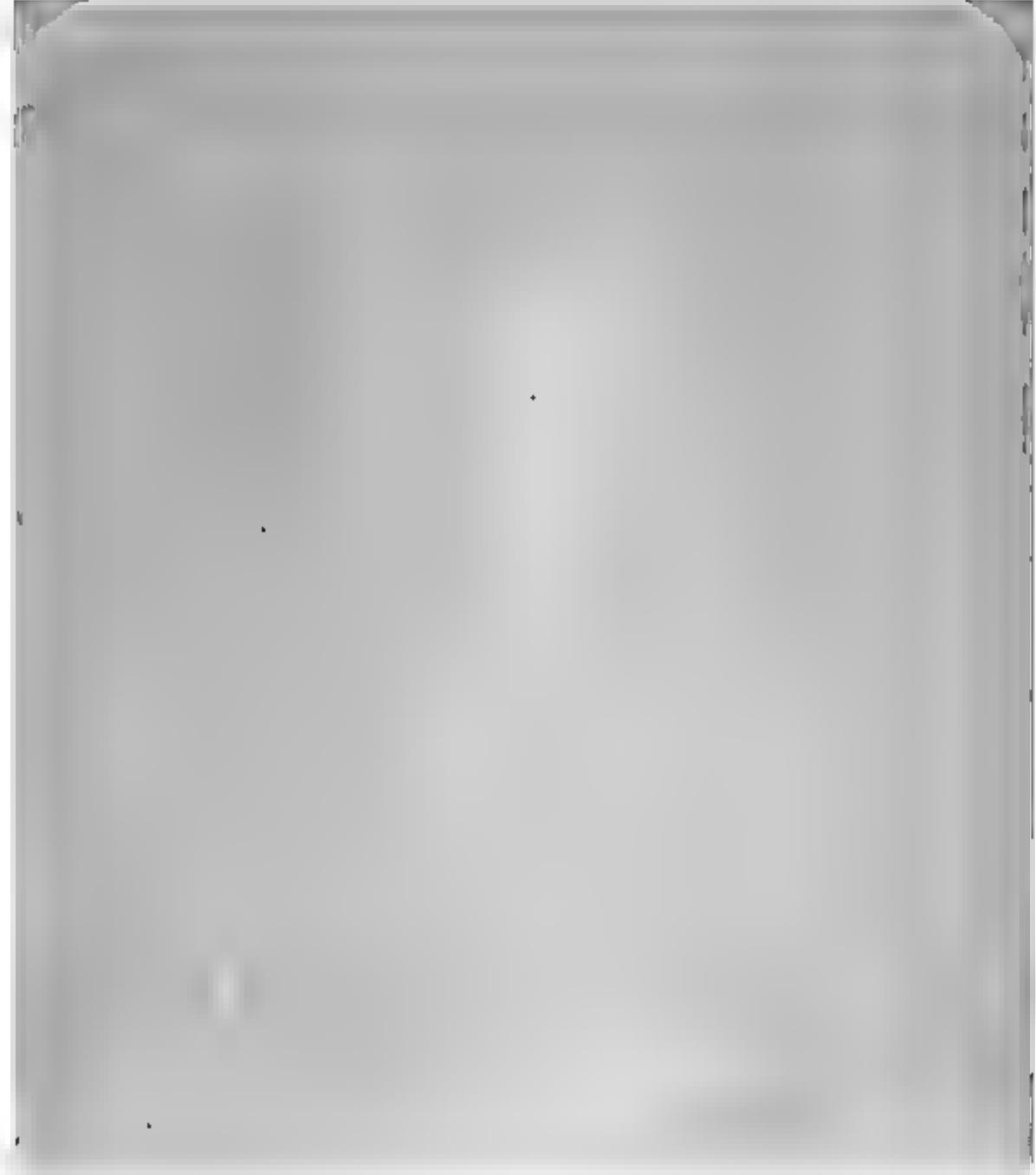
The root is perennial, fibrous, scarcely creeping. The herbage of a bright green. Stem upright and straight, 12 or ~~13~~ inches high, naked except at the base, triangular, the angles rough upwards. Leaves flattish, narrow, taller than the stem,

1097



1097
1097
1097





—

CAREX *divulsa.**Grey Carex.**MONCEIA Triandra.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* inflated, permanent. Seed triangular, invested with the corolla.

SPEC. CHAR. Spike twice compounded, elongated, often branching at the base; the lower spikelets remote; the uppermost clustered. Seeds nearly erect.

SYN. *Carex divulsa.* Gooden. *Tr. Linn. Soc.* v. 2. 160.
Witb. 93. *Hull.* 205. *Sibtb.* 28. *Abbot.* 203.

C. canescens. *Huds.* 405. *Rehb.* 351.

*Gramen cyperoides spicatum minus, spica longa
 divulsa seu interrupta.* *Raii Syn.* 424.

CAREX *divulsa*, like most of its family, grows in moist places, and more particularly in shady situations; hence its pale greyish-green hue, which has given rise to the English name. The specimen here delineated was found by the late Mr. Rayer, between Rochester and Gravesend, flowering in May. It is not one of the most common kinds.

The root is perennial, tuberous, with numerous slender roots.



CAREX vulpina.

*Great Carex.**MONCEIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* inflated, permanent. triangular, invested with the corolla.

Spec. CHAR. Spike thrice compounded, comp. obtuse. Male flowers in each spikelet above female. Fruit spreading. Angles of the very sharp.

Syn. *Carex vulpina.* *Linn. Sp. Pl.* 1382. *Hedw.* An. 404. *Wittb. Bot. Ann.* 1030. *Reib. Can.* Sibib. Ox. 27. *Gooden. Tr. of Linn. Soc.* V. 2. *Leers Herborn.* 196. t. 14. f. 5.

Gramen cyperoides palustre majus, spica comp.
Raii Syn. 423.

THIS is found, rather less frequently than the last marshy places, banks of rivers, &c. and is one of the best as well as best understood British species. It flowers in the early part of summer, but its brown spikes in a seedling may be found for some time afterwards.

Root perennial, fibrous, forming thick tufts. Stems erect, about 2 feet high, stout, very acutely triangular and so as to cut the fingers of those who handle them incapacitatingly. Leaves sheathing the lower part with their whitish membranous base, long, deep green, very rough on the edges and points. General spike of several alternate, rather remote, compound spikelets, with a linear bracteole to each. Little spikelets with their male flowers above the female. Scales of the male obovate, acute, membranous; those of the female somewhat rupt, with a longish rough point. Base of the style with two stigmas. Permanent corolla slightly notched. The spikelet above the lowest spikelet, as Dr. Goodenough observes, gradually diminishes very much in thickness.

Leers's exquisite figures cannot be too much admired, though perhaps he excels less in some of the *Carexes* than in *grasses*. We mean only to commend his own original drawings. Those of the 2d edition are vile copies, in which all the character is lost, and even many parts totally omitted by the blundering engraver.

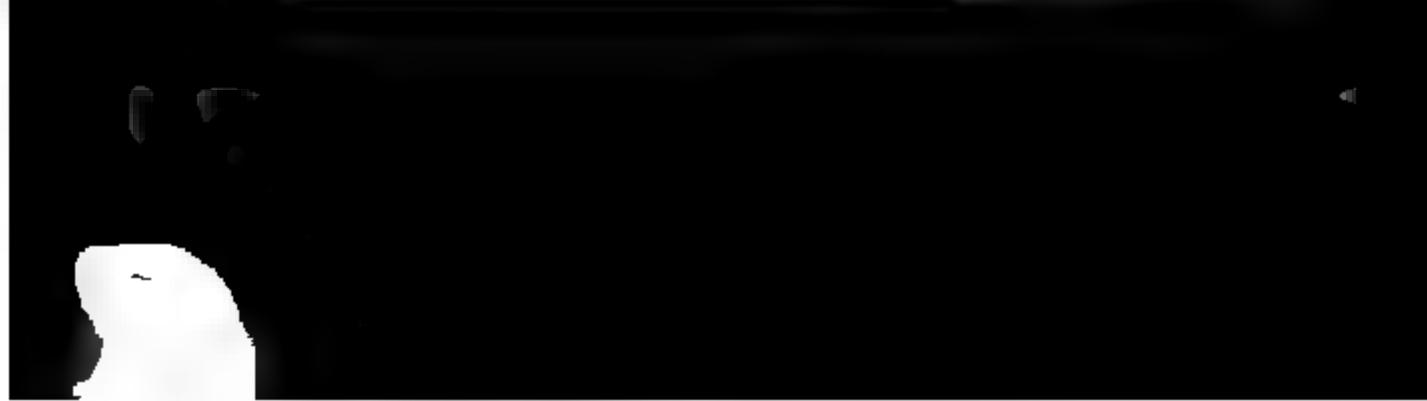






.

—





[1064]

C A R E X pani culata.
Great Paniced Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin imbricated. Cal.* of 1 scale. *Cor.* none. Female, *Catkin imbricated. Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spike thrice compound, branched, paniced, pointed, interrupted. Fruit spreading, beaked. Stem sharply triangular.

SYN. *Carex paniculata.* *Linn. Sp. Pl.* 1383. *Sm. Fl. Brit.* 978. *Gooden. Tr. of Linn. Soc.* v. 2. 164. *Huds.* 403. *Witb.* 94. *Hull.* 206. *Rell.* 351. *Sibb.* 28. *Abbot.* 203.

Gramen cyperoides palustre elatius, spicâ longiore laxâ. *Raii Syn.* 422.

NOT rare in spongy bogs and watery shady places, where its large fibrous perennial roots form huge and firm tufts, raised high above the original soil, and in time changing a rotten bog into a grassy, though coarse, meadow. The stems are 2





mm



C

[6:5]

CASEX digitized

Engl. Curr.

THE YOUNG FRIENDS.

Gen. L. Mac Cook initiated Col. of ~~com~~
line Dr. same Female Cuckoo imbricata
in the tribe Cr. inter. permanent. *Scol*
imbricata. mixed with the corals.

Syst. C. L. S. Sphaer. monococcus, Benthing, locat-
ed, apud me. *Sphaer. lichen*, erect: the ~~monococcus~~
fusiform and convex. *Cephalis* ~~comit.~~

Wth in Eng. not. under Tr. of Lin. Soc.
in 2 vols. 1792-94

In searching for the *Arctocephalus*, Mr. W. Clevedon first
from the *Calanus finmarchicus* which he found in abundance.

015





CAREX clandestina.

*Dwarf Silvery Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Bracteas membranous, sheathing, scarcely leafy. Female spikes remote, of few flowers, in closed in the sheaths. Leaves channelled.

SYN. *Carex clandestina*. Gooden. *Tr. of L. Soc.* 1. 2. 167. Sm. *Fl. Brit.* 980. *With.* 96. *Hill.* 206. *Wid. Sp. Pl.* v. 4. 254. *Schkuhr. Car.* n. 67. t. K. 43.

Cyperoides montanum humile angustifolium, culm veluti folioso spicis obpresso. Scheuchz. *Agr.* 407. t. 10. f. 1.

GATHERED by Mr. E. Forster in April 1809 by the footpath leading down from Clifton to Bristol hot-wells, in very sunny spot. We have often observed it in similar part of the neighbouring St. Vincent's rocks, where it was first discovered by Mr. Sole, nor do we know of its growing elsewhere in Britain.

This has very strong deep perennial roots, and flowers early in spring, when its little silvery bracteas are easily seen among the humble stalks and leaves. The whole plant while flower ing is only an inch or two high, but the leaves soon grow taller, and are channelled, erect, narrow, very rough-edged. Spikes slender, with reddish silvery-edged glumes. Stigma 3, very long, separate to the bottom. Fruit obovate, slightly triangular, finely downy when young, entire at the mouth. The male spikes are solitary; female 2 or 3. Sometimes an early female spike throws out a stalk bearing a later male one, as in our specimen. As the fruit ripens, the stem and leaves become greatly lengthened, and the bracteas disappear.

2174



Not published by P. L. Smith, Jr.





[2315]

CAREX pendula.

*Great Pendulous Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths elongated, nearly equal to the flower-stalks. Spikes cylindrical, very long and drooping. Fruit ovate, acute, closely crowded.

Syn. *Carex pendula*. *Huds.* 411. *Sm. Fl. Brit.* 98

Gooden. Tr. of Linn. Soc. v. 2. 168. *With.* 9

Hull. ed. 2. 271. *Lights.* 564. *Rch.* 366. *Sib.*

413. *Abbot.* 206. *Curt. Lond. fasc.* 3. t. 63.

C. Agastachys. Linn. Suppl. 414. *Ehrh. Phyt.* n. 1

Gramen cyperoides, spicâ pendulâ longiore. *Roxb.*

Syn. 420.

A NATIVE of rather moist woods and hedges, which we have no where observed more frequently than within a mile or two of London to the north and west, flowering early in June. Its great size, and long, dense, curved, dependent spikes, composed of vastly more copious fruit than those of any other British *Carex*, well distinguish this species.

The root is fibrous, perennial. Stem from three to five or six feet high, erect, leafy, triangular, its edges rough near the top only. Leaves long and broad, harsh, rough at the edge and keel, of a full green, rather glaucous underneath. Stipule long, narrow and sheathing. Floral leaves with tubular sheaths, nearly as long as the flower-stalks, at least the lower ones. Spikes on shortish stalks, cylindrical, very long, from five to seven, all nearly entirely female, except the terminal one, which also sometimes bears female flowers at its extremity. The scales are rusty, with a pale keel. Anthers long, rusty. Fruit green, a little inflated, triangular, pointed, smooth. Stigmas three. Seed triangular, brown.





—

CAREX strigosa.

*Loose Pendulous Carex.**MONOECIA Triandria.*

Gen. CHAR. Male, *Catkin imbricated. Cal.* ~~of~~
1 scale. Cor. none. Female, Catkin imbricated. ~~Cal.~~
Cal. of 1 scale. Cor. none. Stigmas 2 or 3.
Serd clothed with a swelling tunic.

Spec. CHAR. Sheaths elongated, nearly equal to ~~the~~ flower-stalk. Spikes slender, loose, a little drooping. Fruit lanceolate, triangular, ribbed.

Spec. Carex strigosa. *Huds.* 411. *Gooden. Tr.* ~~of~~
Linn. Soc. v. 2. 169. t. 20. f. 4. Sm. Pl. Brit. 9~~8~~ 2.
Wittk. 96. *Hall.* 206. *Sibth.* 32. *Abbot.* 2~~0~~ 5.

Gramen cyperoides polystachyon majusculum latifolium, spicis multis longis strigosis. Rait Syn. 4~~2~~ 9.

FEW botanists have seen this Carex in its native places of growth, yet it is to be found in woods or groves in several parts of England, as Essex, Oxfordshire, and Bedfordshire; also in Hedenham wood, Norfolk, where Mr. Stone first observed it many years since. We are obliged for our specimen to Mr. D. C. H. Willmott, F.L.S., who has sent us a







CAREX *sylvatica.*
Pendulous Wood Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale.
Cor. none. Female, Catkin imbricated. *Cal.* of
 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed
 with a swelling tunic.

SPEC. CHAR. Sheaths but half as long as the flow-~~er~~-
 stalk. Spikes slender, a little loose, drooping.~~g-~~
 Fruit ovate, triangular, beaked, without ribs.

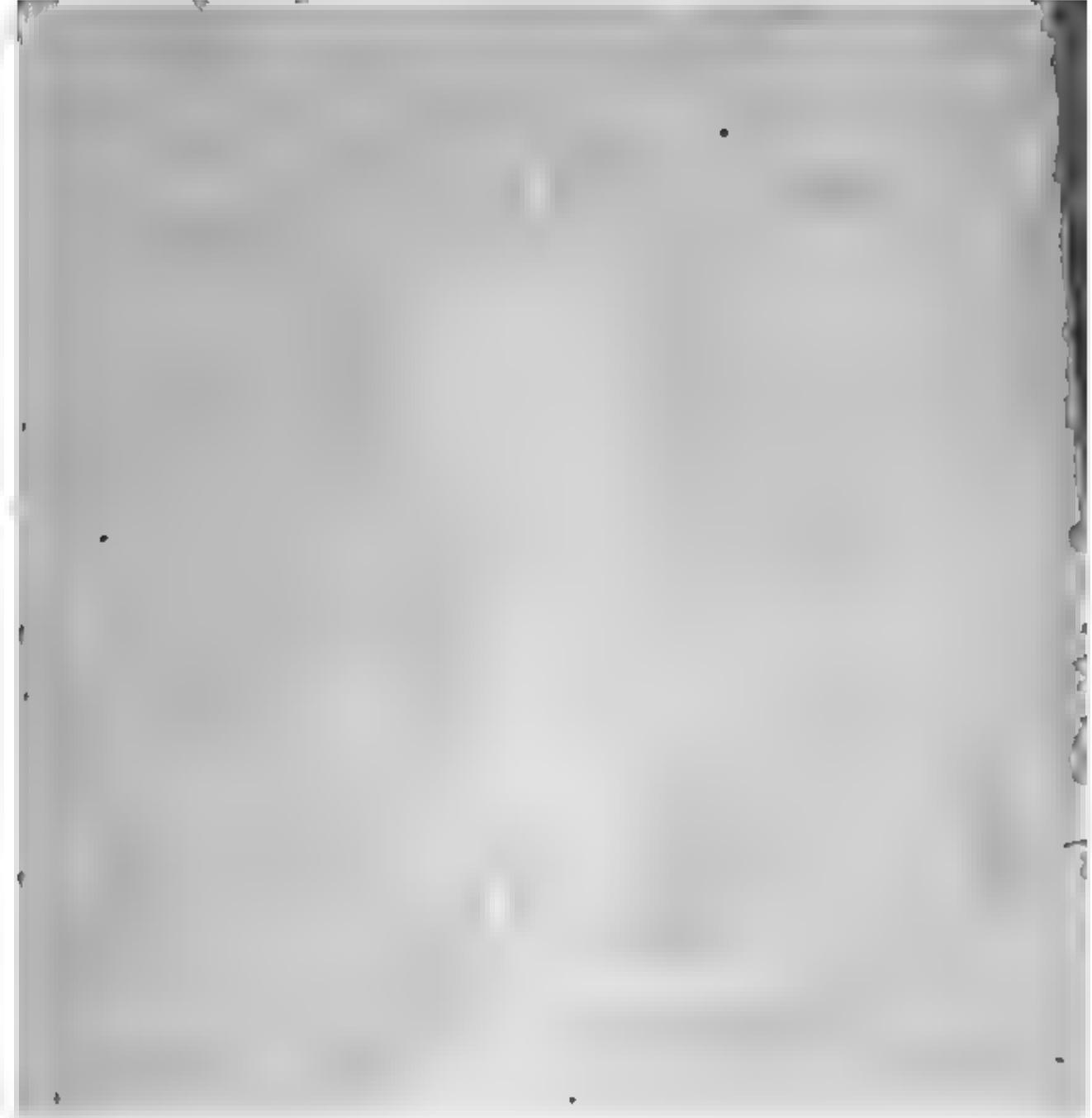
Syn. *Carex sylvatica.* Huds. 411. Gooden. Tr. of
Linn. Soc. v. 2. 183. Sm. Fl. Brit. 983. Witb. 102.
Hull. 207. Relb. 356. Sibb. 30. Abbot. 205.
Dickf. H. Sicc. fasc. 9. 13.

Gramen cyperoides sylvarum, tenuis spicatum. ~~Ranii~~
Syn. 419.

COMMON throughout Britain in woods or thickets, ~~rather~~
 preferring a clay soil, and situations that are wet in winter;
 flowering in May or June.

This agrees much in habit, stature and foliage with the ~~var.~~,
 with which therefore most botanists contrast it; but in fact ~~the~~
C. sylvatica is naturally allied to *C. vesicaria*, *Levigata*, ~~etc.~~





1

5.

[1098]

C A R E X depauperata.
Starved Wood Carex.

MONOECIA Triandra.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Sheaths much shorter than the flower-stalk. Female spikes distant, erect, of but few flowers. Fruit inflated, beaked.

STR. Carex depauperata. *Garden Tr. of Linn. Soc.* v. 2. 181. *Sup. Fl. Brit.* 984. *Wittb.* 102. *Hall.* 207.

C. ventricosa. *Curt. Land. fasc.* 6. t. 68.

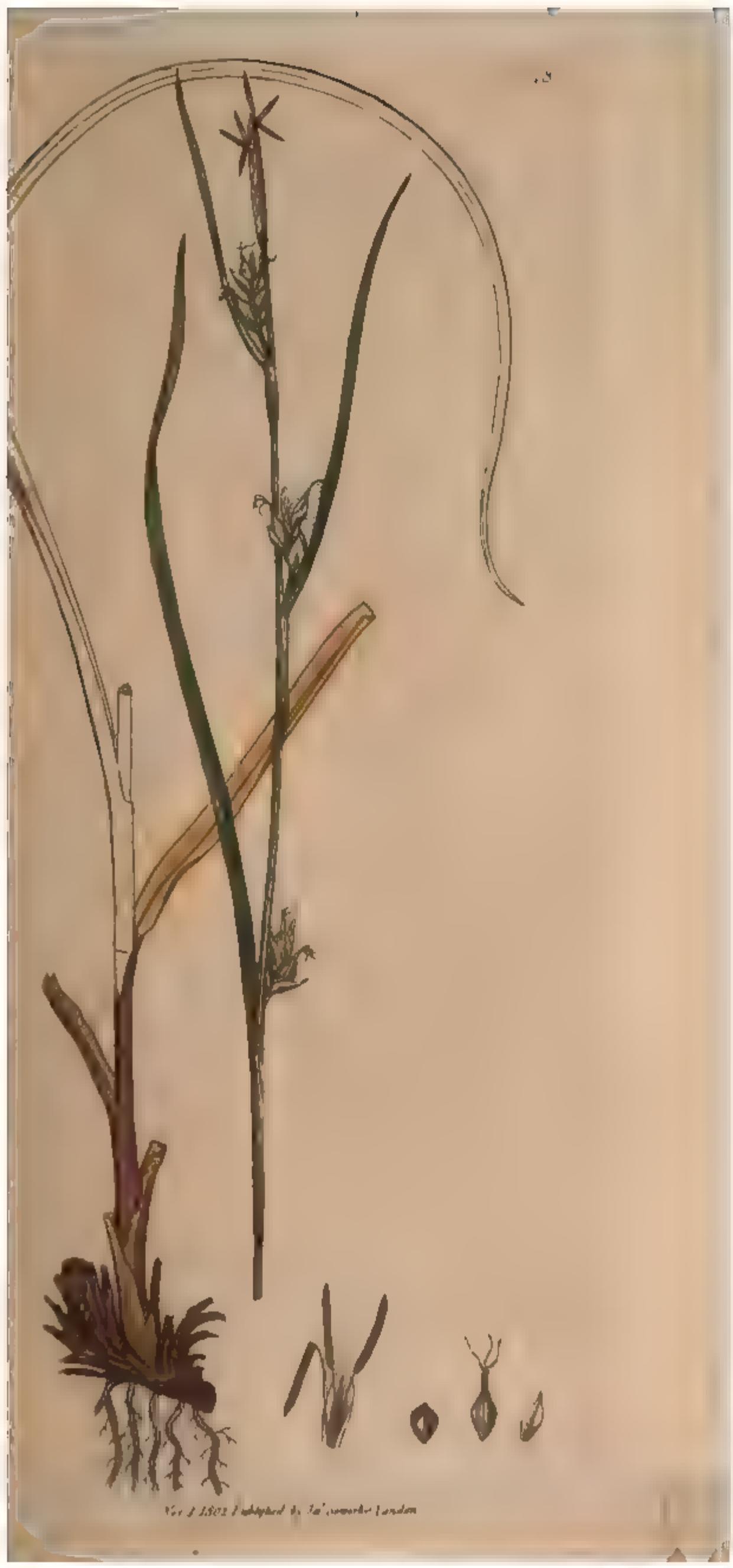
C. triflora. *Willd. Psys. fasc.* 1. 2. t. 1. f. 2.

Cyperoides reficiens humile, loculis rarioribus.

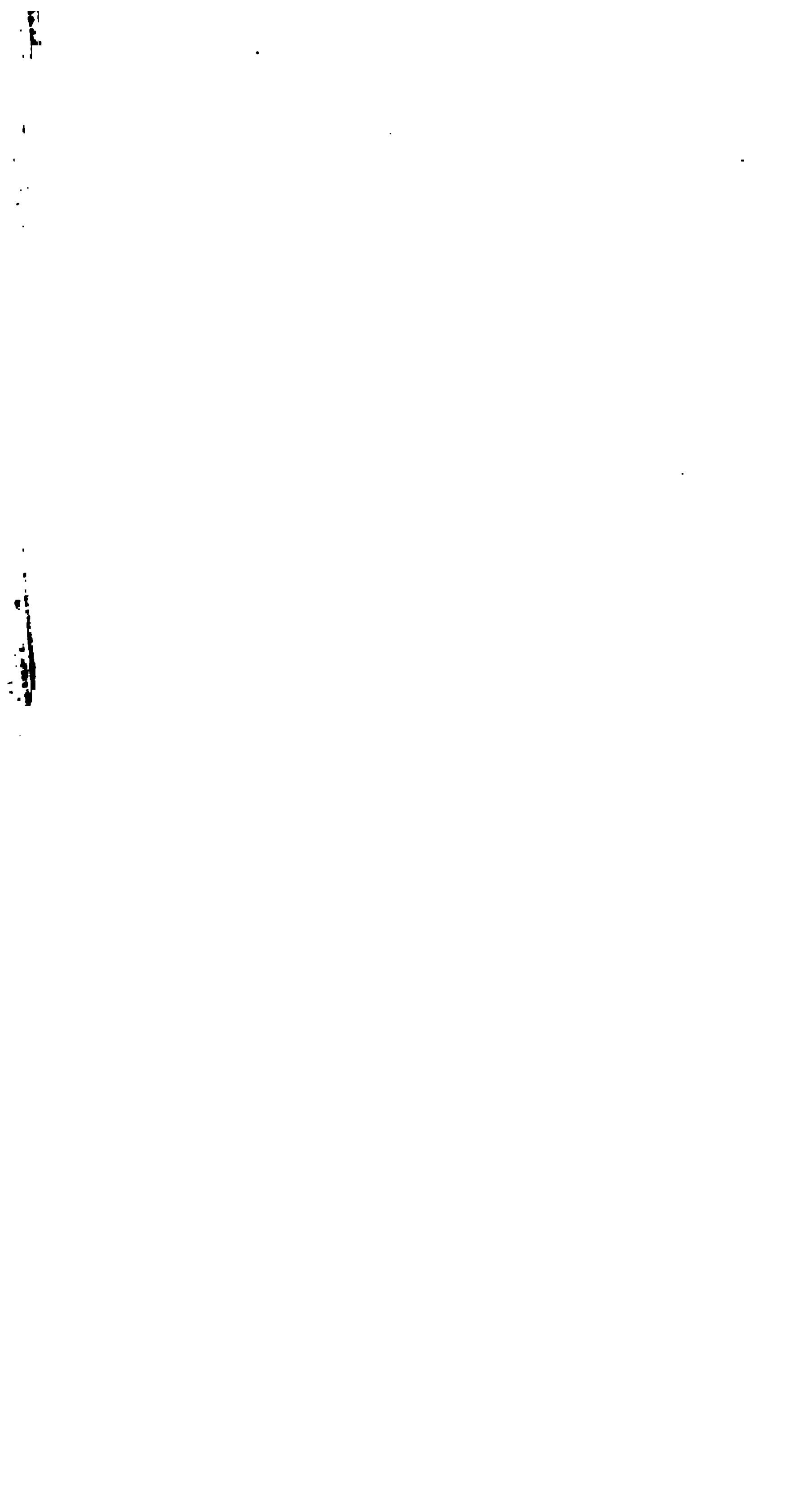
Tourn. byg. 530.

THE name of *depauperata*, first given to this Carex, and retained by Dr. Goodenough, is so much more apt than *ventricosa*, that we are astonished Mr. Curtis should have changed it for the latter, which is equally suitable to many others in the genus. See *F. Land.*

Carex depauperata is known to Tournier as *loculicidaria*.



Ver. 3 1802 Published by J. C. Beaufort London





CAREX Mielichhoferi.*Loose-spiked Rock Carex.***MONOCIA Triandria.**

GEN. CHAR. Male, Catkin imbricated. *Cal.* of ~~one~~ scale. Cor. none. Female, Catkin imbricate. *Cal.* of one scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths not half the length of the flower-stalk. Female spikes three, distant, erect, lax and slender. Fruit ovate, triangular, bluntly cloven, twice the length of the obtuse scale.

SYN. *Carex Mielichhoferi.* "Schkuhr Caric. fig. 198." Willd. Sp. Pl. v. 4. 276.

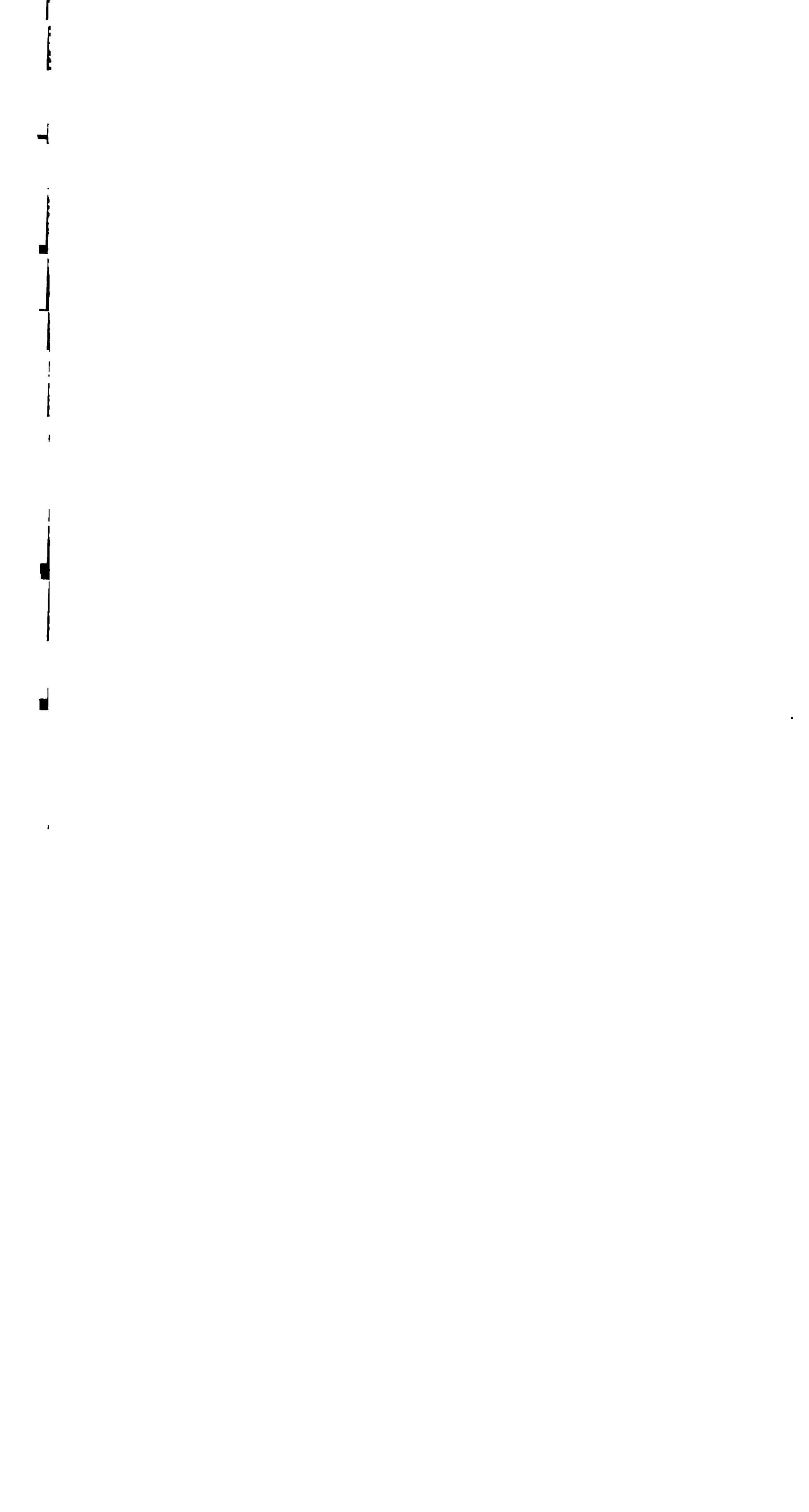
FOUND by Mr. W. Borrer, in August 1810, on the rocky ledges of Craig Challock, in Breadalbane. We rely, for Schkuhr's synonym, upon Willdenow, who says moreover

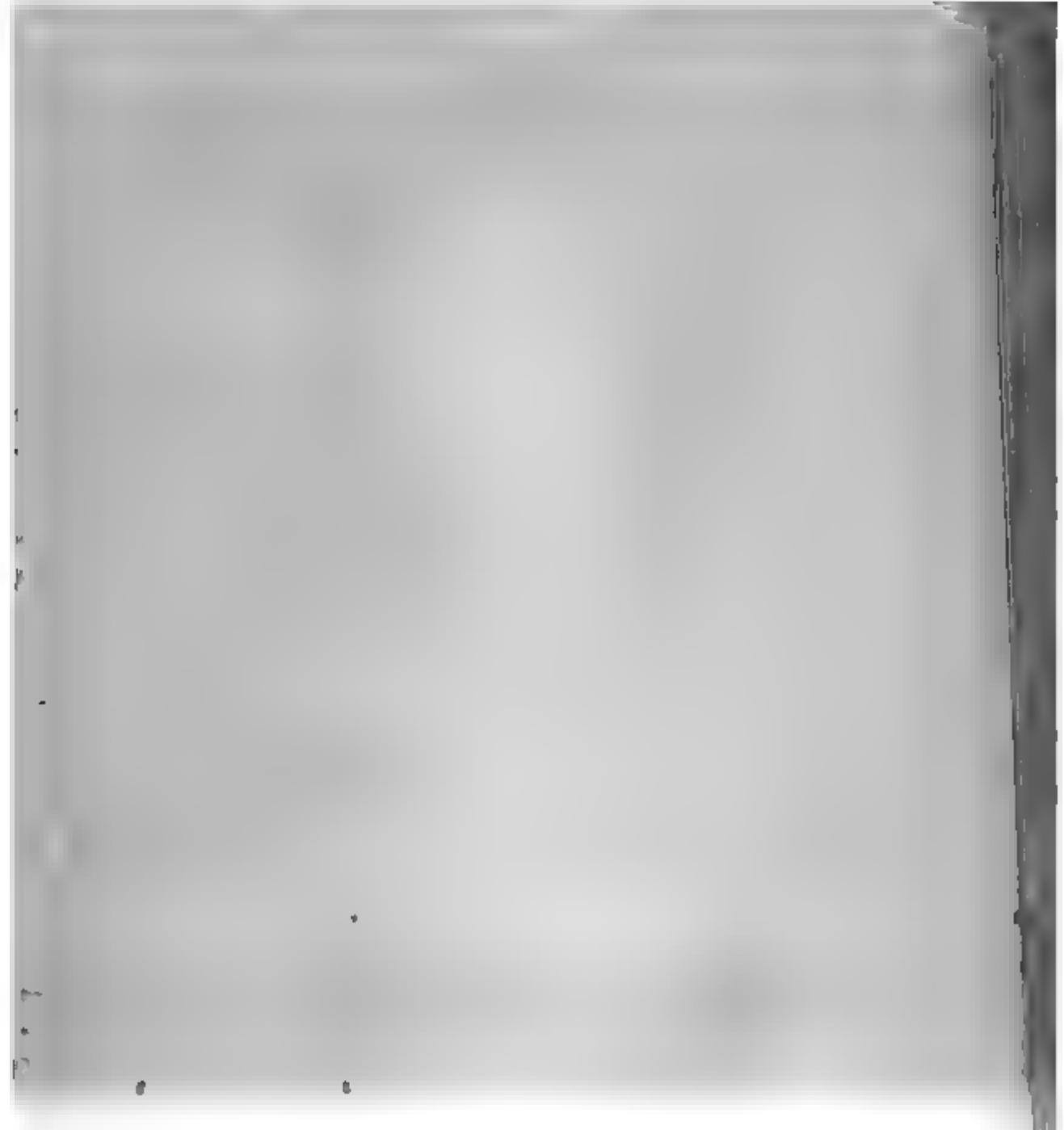
this is *C. alpina* of Hoppe. It is entirely new to British botanists, and of all our *Carexes* is most akin to *depauperata*, t. 1098, though abundantly distinct from that and every other in our Flora.

The root appears to be creeping or stoloniferous. Stems about a foot high, smooth, roundish. Leaves chiefly radical, flat, smooth, with acute stipulas. Bracteas nearly the length of the slender flowerstalks, erect, acute; their sheathing part about one third of the whole. Female spikes three, upright, lax, the lowermost consisting of about a dozen flowers, the uppermost of half as many; their glumes broad, rounded and bluntish, red-brown, with a broad yellowish rib. Stigmas three. Fruit green, ovate, slender, incurved, triangular, roughish-edged, its orifice rounded and cloven. Male spike solitary, terminal, erect, oblong, bluntish, of numerous, ob-ovate, red-brown scales, much longer than those of the female. Stamens three, whitish.

2293







C A R E X capillaris.
Capillary Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Common sheath but half the length of the flower-stalks. Female spikes ovate, rather loose, drooping. Fruit sharp-pointed.

SYN. *Carex capillaris.* Linn. Sp. Pl. 1386. Sm. Fl. Brit. 985. Gooden. Tr. of L. Soc. v. 2. 180. Lightf. 557. Huds. 651. With. 101. Hull. 207. Dicks. H. Sicc. fasc. 9. 14. Winch. Guide. v. 1. 84.

Cyperoides alpinum, spicis seminiferis pendulis, bimis in summo caule. Seguier. Veron. v. 3. 83. t. 3. f. 1.

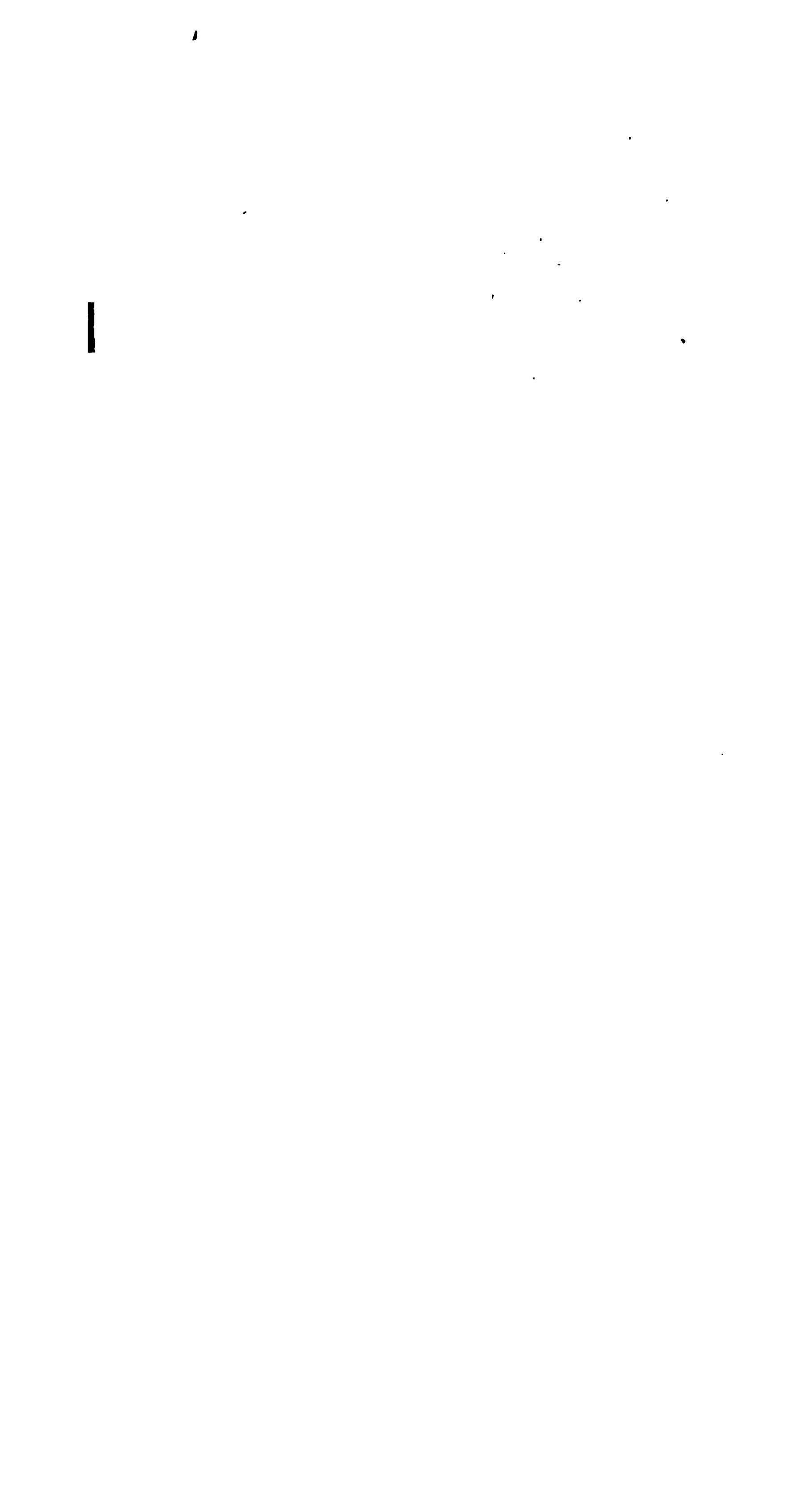
THE Rev. Dr. Stuart found this rare *Carex* on some of the Highland mountains of Breadalbane, and communicated it to Mr. Lightfoot, through whom it first became known as a Scottish plant. It has since been sent to Mr. Sowerby from the county of Durham, by the Rev. Mr. Harriman. It usually grows in bushy rather moist places, flowering in July or August.

Root perennial, fibrous. Stem erect, 3 or 4 inches high, roundish, striated, smooth, naked, or nearly so. Leaves scarcely 2 inches long, mostly radical, narrow, acute, dark-green, slightly keeled, rough-edged towards the top only. Principal bractea like the leaves but smaller, terminating the stem, erect, sheathing at the base, embracing a few smaller inner ones, along with all the flower-stalks, which are about twice its own length, 3 or 4 in number, capillary, triangular, rough, sometimes separated from each other by an accidental elongation of the stem. Male spike erect, linear, pale, of about 10 flowers: female 2 or 3, drooping or pendulous, ovate, lax, not half an inch long. Glumes ovate, brown, pale-edged. Stigmas 3. Fruit dark-brown, ovate, triangular, smooth, with a sharp beak. Seed elliptical, with 3 sharp angles.

2009



Digitized by J. K. on by J. K.





CAREX rariflora.

Loose-flowered Alpine Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. Female Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths extremely short. Female spikes nearly linear, pendulous; their scales loosely imbricated. Fruit obovate, with three blunt angles and depressed sides. Root creeping.

SYN. *Carex limosa* γ , *rariflora*. *Wahlenb.* in *Stock. Trans.* for 1803. 162. *Willd. Sp. Pl.* v. 4. 294.

DISCOVERED in 1807, by Mr. G. Don, on a mountain at the head of a glen called the Dell, among the mountains of Clova, Angusshire, near the limits of perpetual snow. Its acute discoverer wished therefore to have named the species *C. nivalis*; but we think it incumbent on us to retain the appellation by which this plant is marked, very unaccountably indeed, as a variety of *C. limosa*, t. 2043, in the above works. We have authentic specimens from Mr. Wahlenberg, precisely like Mr. Don's.

Surely few *Carices* can be more distinct than this and *limosa*. They agree indeed in the creeping root, short sheaths of the bracteas, and drooping female spikes; but the present is in every part much smaller, and the shape of the female spikes, composed of a few remarkably lax, or distant, scales, blacker than in *limosa*, marks a sufficient difference. The fruit is obovate, not broad and compressed.

2510



As reproduced by John G. Smith

1

1

1

1

1

[242]
AUXILIARIA Pseudo-Cyperus.
AUXILIARIA Carex.

AUXILIARIA Franss.

— Male. — Leaves imbricated. Cal. of one

spike. Female. Ovules imbricated.

— Male. — Nutr. inflat., cloren.

Female. — Ovules triangular, invested with the

nutr. — Leaves broadly spreading. Female

spikes in flower-stalks, pendulous.

Female. — Ovules. Nectary tapering

down to a point. — *Linn. Sp. Pl.* 1387.

— *Bot. Mag. 1773. Bot. Afr. 1043. Rob.*

— *Bot. Mag. 1773. Linn. Soc. v. 2. 183.*

— *Bot. Mag. 1773. Recensia brevior. Rob.*

— Found in wet marshy places, flowering

in summer and autumn from all the rest of us

— Female. — Ovules imbricated female spikes

— Ovules. — Ovules two together, but







CAREX *lutescens**Green and gold Carex.*

NOVEMBER FLOWERS

Carex lutescens. Male flower monodelphous. Cal. of one scale. Cor. none. Female, Corolla imbricated. Cal. of one scale. Cor. none. Stigmas 2 or 3. Not dotted with a swelling base.

Sedge Carex. Roots creeping short, scarcely any. Female spike white, pendulous. Fruit elliptical, compressed. Roots creeping.

Sex Carex lutescens Lam. &c. Pl. 1586. Sm. F. B. 1866. Griseb. Tr. v. Linn. Decr. t. 2. 1866. B. 1866. Fl. 1866. B. 1866. Light. 556.

Cyperaceae spica peduncula breviora. squamis e spadiceo et bracteis rufis coloribus. Siliquulae agt. H. 2. 1866. C. 1866.

THIS is one of our most elegant species of Carex, especially from the intense hue of its spikes, it is found only in deep black loamy bogs, chiefly in Scotland and the north of England. Mr. G. Dru sent it from near Fife. The late Rev. M. B. Evans and Mr. Woodward have found it a few miles north of Newmarket, in a tract of country long rich in botanical treasures, but now most useful to the timber. It flowers in June but rarely, at least in Norfolk.

The long creeping perennial roots, sheathed with black scales, send very long woody fibres down deep into the mud. The herbage is rather glaucous. Stems ascending, triangular, a span high, rough, leafy at the base. Leaves narrow, acute, keeled, rough-edged, shorter than the stems. Bracts like the leaves but much smaller, with a brown, abrupt white-edged, very sharp sheath. Male spike terminal, erect, lanceolate, with many elliptical acute glumes, of a brown and golden hue. Female spikes 1 or 2, on longish, smooth drooping stalks, orange, of many broadly elliptical acute scales variegated with green, brown and gold. Fruit elliptical, broad, compressed, glaucous, ribbed, smooth, with scarcely a break. Stigmas 3. Germen and seed triangular, scarcely compressed.

264. 8



Botany addit. 1 by J. S. Ward, London





[2404]

CAREX ustulata.

Scorched alpine Carex.

MONOECIA Triandria.

Gen. CHAR. Male, Catkin imbricated. Cal. of one scale. Cor. none. Female, Catkin imbricated. Cal. of one scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.

Spec. CHAR. Sheaths very short. Female spike ovate, pendulous. Fruit elliptical, compressed, beaked, with sharp and roughish edges. Roots fibrous.

SPEC. *Carex ustulata.* Willd. Sp. Pl. v. 4. 293. Web. Anh. in Sämtl. § Kon. Ann. of Bot. T. 2. 130.

C. astro-fusca. Schkuhr. Cmr. 106. L. Y. n. 82.

GATHERED in watery places in a mica-schist soil on the mountain of Ben Lawers, by Mr. Geo. Don, the only person

244





[2044]

CAREX atrata.
Black Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Stamens two or three. Sheaths scarcely any. Spikes ovate, stalked, pendulous; the terminal one male in the lower part. Fruit compressed. Root fibrous.

SYN. *Carex atrata.* *Linn. Sp. Pl.* 1386. *Sm. Fl. Brit.* 987. *Gooden. Tr. of Linn. Soc.* v. 2. 189. *Huds.* 409. *With.* 105. *Hull.* 208. *Lightf.* 555. *Dicks. Dr. Pl.* 87. *Fl. Dan.* t. 158.

Cyperoides alpinum pulchrum, foliis caryophyllaceis, spicis atris et tumentibus. *Scheuchz. Agr.* 481. t. II. f. 1, 2.

GATHERED by Mr. G. Don on rocks in Breadalbane. Mr. Lightfoot says it is frequent on the Highland mountains, and Mr. Hudson on the Welch ones; but we have reason to think they did not then distinguish all the species, so well explained in the present Bishop of Carlisle's excellent paper, especially his Lordship's *rigida* and *pulla*.

C. atrata is, of course, perennial, flowering in June and July. It is one of the larger and more conspicuous alpine species, nor can it be overlooked. The root is fibrous, naked, hardly creeping. Stem erect, a foot and more in height, triangular, striated, scarcely rough-edged, naked except the bottom. Herbage of a bright grass green. Leaves broad, flat, rough-edged, shorter than the stem. Bracteas leafy, with awl-like rather than any sheaths. Spikes mostly 4, on smooth stalks, ovate, thick and obtuse, soon pendulous, formed of numerous ovate, acute, very dark scales. The terminal one consists of several male flowers in its lower part, the upper ones, as well as all the flowers of the other spikes, being female, except that stamens are now and then found in the same flower with a pistil. The stamens are usually thought to be 2, but Mr. Sowerby often finds 3. Stigmas always 3. Fruit elliptical, broad, compressed, yellowish, smooth, ribless, with a notched beak. Seed triangular, short, brown.



Pl. 1, reproduced by J. E. Smith, 1800



C A R E X pulla.

Russet Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin imbricated. Cal.* of one scale. *Cor.* none. Female, *Catkin imbricated. Cal.* of one scale. *Cor.* none. *Stigmas 2 or 3. Seed clothed with a swelling tunic.*

SPEC. CHAR. Stigmas two. Sheaths none. Spikes ovate; the lower one stalked. Fruit elliptical, inflated, with a short notched beak.

SYN. *Carex pulla.* *Gooden. Tr. of Linn. Soc. v. 3. 78. t. 14.* *Sm. Fl. Brit. 988.* *Hull. 208.*

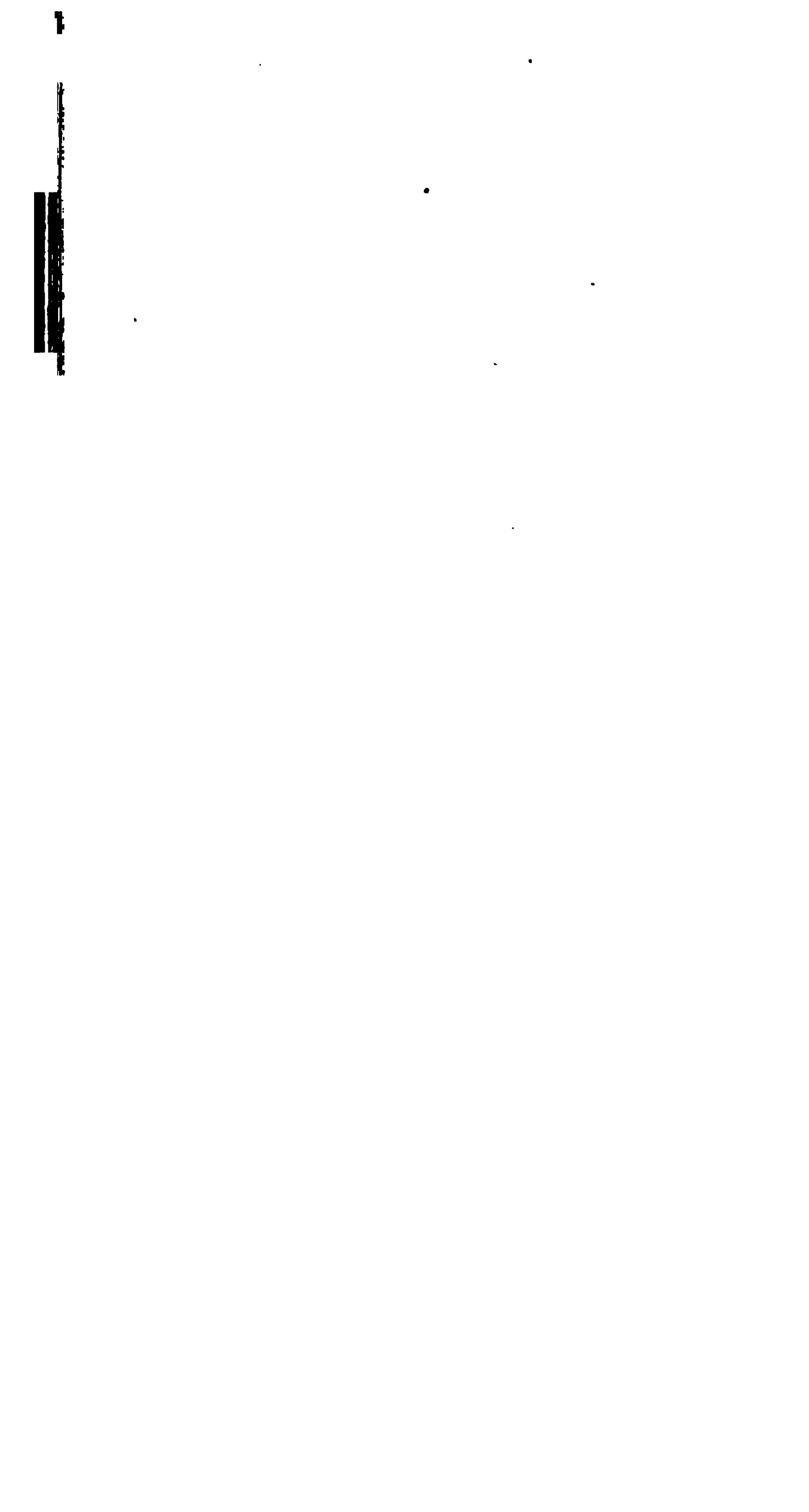
COMMUNICATED wild from the mountain of Ben Lawen by our lamented friend Mr. J. Mackay, at different times, several years ago. It flowers in July, and is perennial.

Root creeping, with thick fibres. Stem ascending or erect, about a span high, triangular, striated, the angles rough in

2043.



Digitized by JSTOR





C

[2185]

CAREX pallescens.

Pale Carex.

MONOECIA Triandria.

Gen. Char. Male, Catkin imbricated. Cal. of 1 scale. Cor. none. Female, Catkin imbricated. Cal. of 1 scale. Cor. none. Stigmas 2 or 3. Seta clothed with a swelling tuft.

Spec. Char. Sheaths very short. Spikes cylindric, ~~erect~~ when in fruit pendulous. Fruit elliptical, inflated above.

Spec. Carex pallescens. Linn. Sp. Pl. 1336. Syst. Pl. Br. 183. Covacev. Tr. of Linn. Soc. v. 2. 186. Flora. 412. Willd. 103. Hull. 203. Lightf. 558. Rott. 382. Scut. 29. Attoo. 204. Dick. H. Flora. Ind. & Trop. Scand. n. 92. L. Kl. f. 99.

Gramineae cyperoides polytrichyon flavicoma, spicis brevibus pedice summis obtusa. Rott. Syn. 419.

COMMON in moist groves and pastures, flowering in May



41. *Strobilurus esculentus*

—



[1294]

C A R E X flava.

*Yellow Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths short, nearly equal to the flower-stalks. Female spikes roundish. Fruit beaked, curved downwards. Stem nearly smooth.

SYN. *Carex flava.* *Linn. Sp. Pl.* 1384. *Sm. Pl. Brit.* 990. *Gooden. Tr. of Linn. Soc.* v. 2. 173. *Huds.* 407. *With.* 98. *Hull.* 207. *Lighf.* 551. *Reh.* 367. *Sibth.* 29. *Abbot.* 204. *Dickt. H. Sicc. fasc.* 3. 14. *Schkuhr.* n. 60. *t. H. f.* 56.

Gramen palustre echinatum. *Raii Syn.* 421.

FREQUENT in boggy meadows, where it flowers in May and June, and may readily be discerned at a distance by its yellow hue especially as it approaches to maturity. It grows







[1295]

CAREX fulva.

*Tawny Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale.
Cor. none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths long, but shorter than the flower-stalks. Female spikes ovate. Fruit beaked, straight. Stem rough.

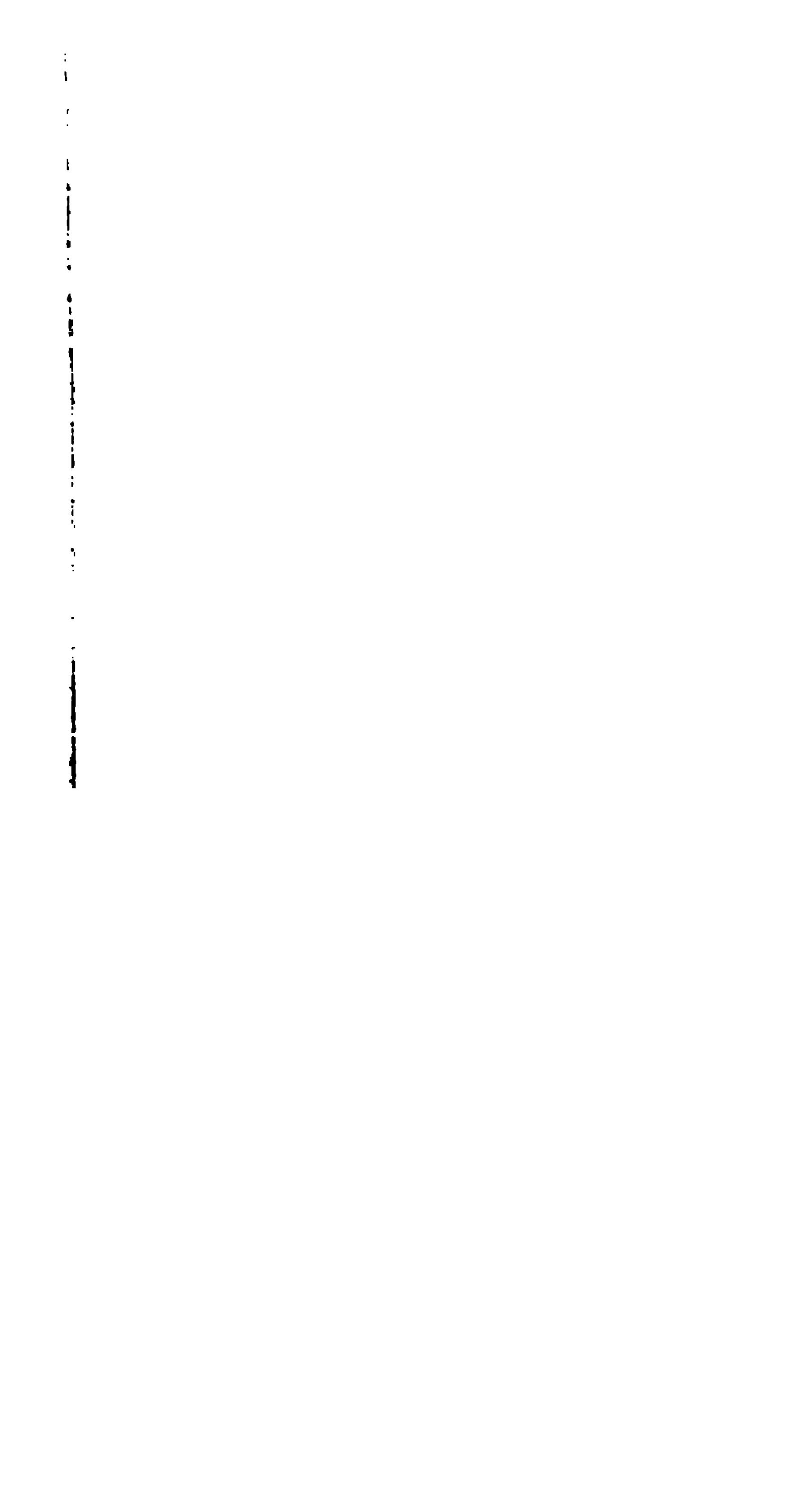
SYN. *Carex fulva.* *Gooden. Tr. of Linn. Soc.* v. 2. 177. t. 20. f. 6. v. 3. 77. *Sm. Fl. Brit.* 991.

THIS new species was first described and figured by Dr. Goodenough, from specimens gathered in Shropshire by the Rev. Mr. Williams. Mr. Gotobed has since found it near Eton, Mr. Winch at Newcastle, and several of our friends have sent it from Scotland. It is perennial, growing in marshes, and flowering in June or July.

Root creeping. Stem erect, slender, about a foot high, triangular, the angles sharp and very rough, at least in all the upper part. Leaves upright, narrow, shorter than the stem, rough at the edges and keel, but not on the upper side. Bracteæ with longish brown-tipped sheaths, their points not rising above the stem. Male spike linear. Female ones rarely 3, tawny, ovate, erect, remote, on stalks which are about half as long again as their sheaths. Glumes ovate, never awned, obscurely nerved. Fruit longer than the glumes, brownish, pointing upwards (not recurved), beaked, smooth, except at the edges of the beak, cloven at the tip. Seed yellowish brown, twice as large as in the preceding.

Some erroneous specimens led the accurate Dr. Goodenough to reduce this (*in L. Trans.* v. 3.) to a variety of *C. flava*, but we have traced the cause of this mistake. *C. fulva* is rather more akin to *distans*, t. 1234, but smaller, and distinguished by its rough stem, glumes without any awns, and longer-beaked rough-edged fruit.







卷

[1773]

C A R E X Oederi.

Oederian Carex.

MONOECIA Triandra.

GEN. CHAR. Male, *Catkin imbricated.* *Cal.* of one scale. *Cor.* none. Female, *Catkin imbricated.* *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths short, nearly equal to the flower-stalks. Female spikes roundish. Fruit globose with a straight beak, spreading in all directions. Stem smooth.

SYN. *Carex Oederi.* *Ehrh. Calam.* 79. *Schlukr.* n. 55. *I. F. f.* 26. *Turn. and Dilw. Bot. Guide,* 65. 446. 566. 715.

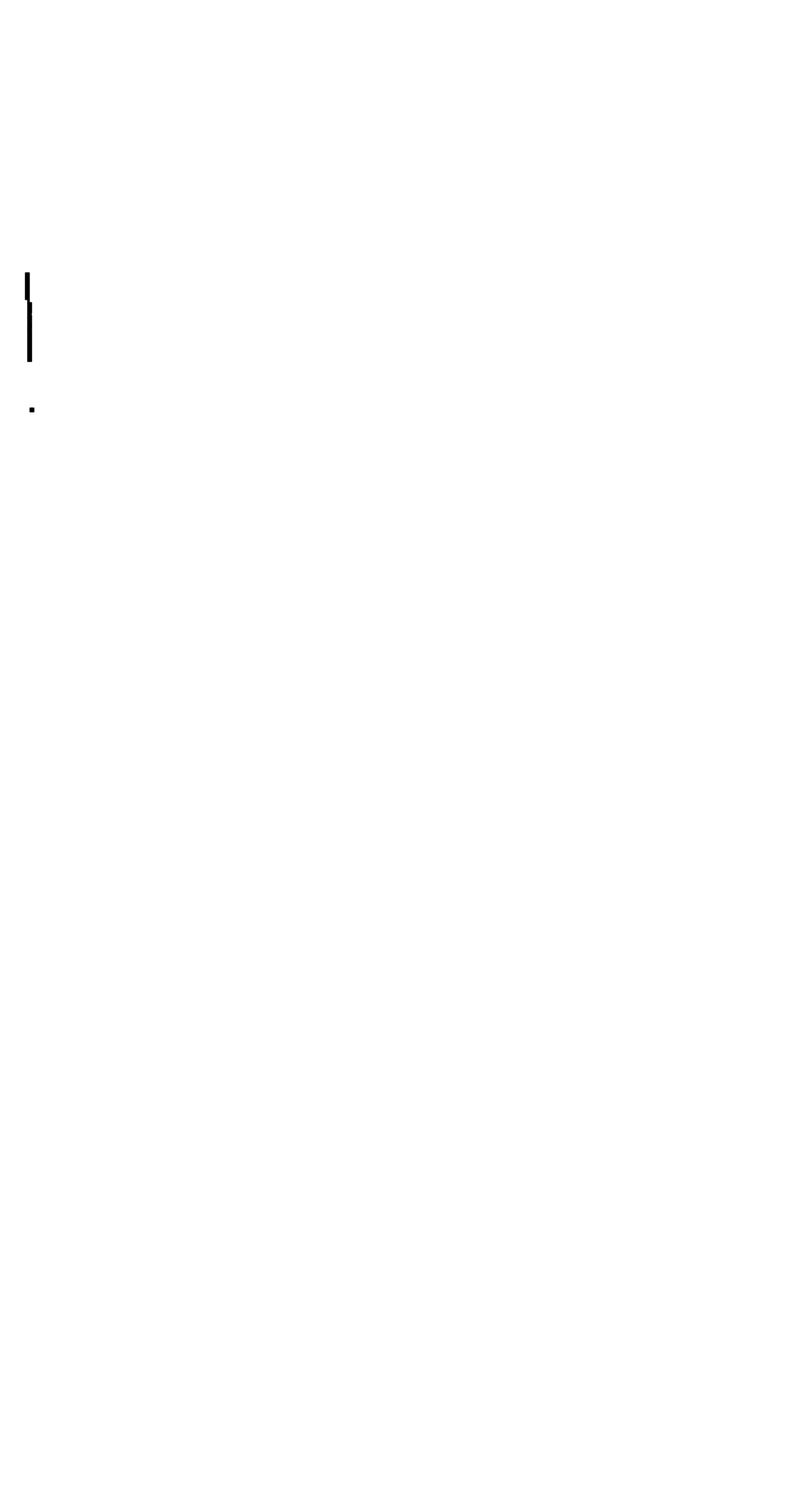
C. extensa. *Rehd. Tr. of L. Soc. v. 5. 69.*

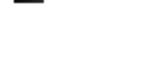
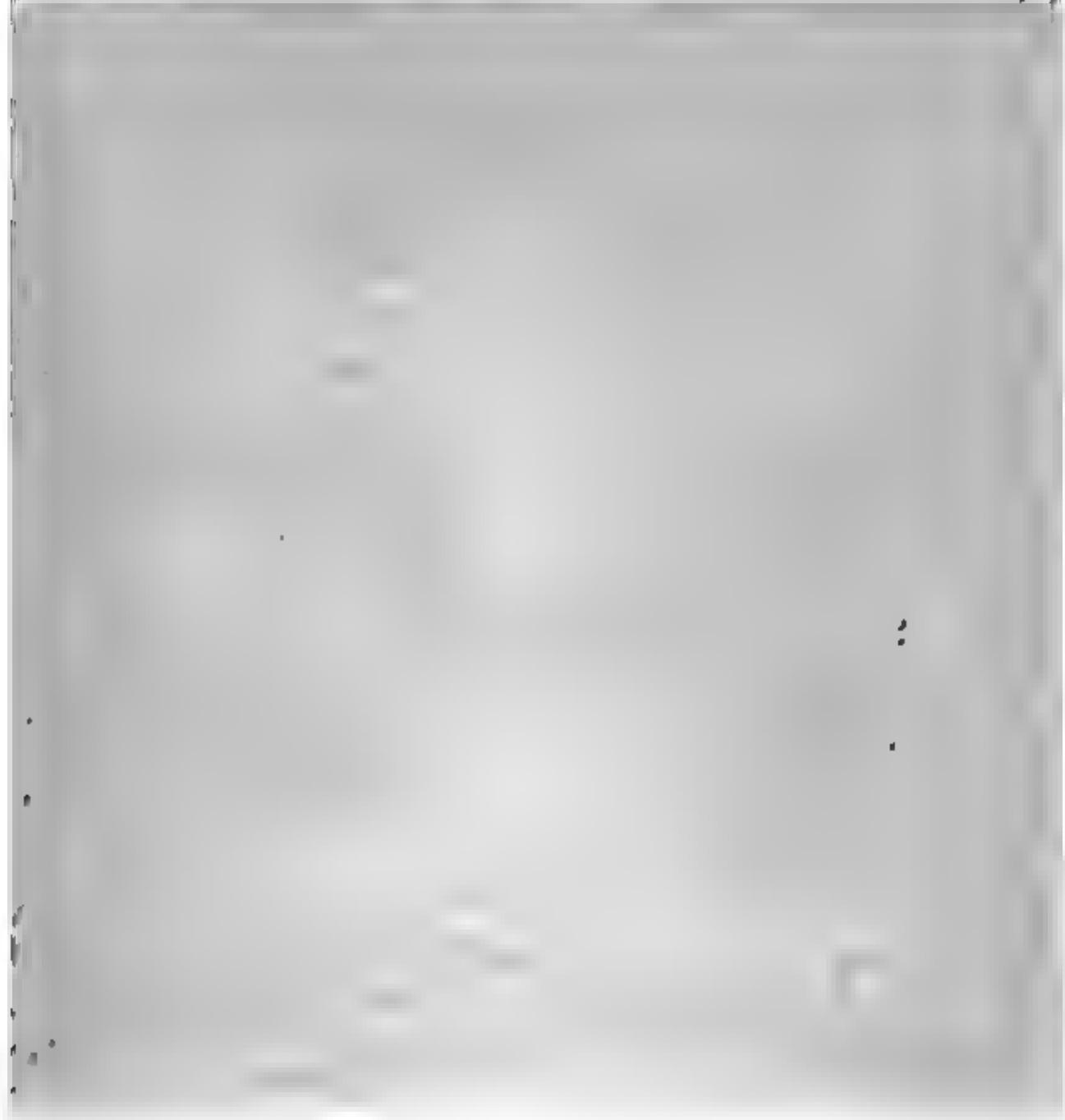
SENT from Norfolk in July last by Mr. Turner, who mentions it as frequent on all the moist commons about Yarmouth. The synonym of Rehder stands on the authority of this gentleman; that of Teesdale is decided by specimens sent from Beverley by their late worthy finder, which agrees

1773



Specimen collected by Dr. J. S. Gray, Boston.





[833]

C A R E X *extensa.*
Long-bracted Carex.

MONOECIA Triandra.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Bracteæ very long, with very short sheaths and flower-stalks. Female-spikes roundish. Fruit ovate. Stem smooth.

SYN. *Carex extensa.* Gooden. Tr. of Linn. Soc. v. 2. 175. t. 21. f. 7. and v. 3. 77. Sm. Fl. Brit. 992. Witb 99. Hull. 207.

Cyperoides echinatum majus. Dill. in Raii Syn. 421.

THIS Carex, when first found by the Rev. Mr. Bryant on Cley beach, Norfolk, in 1776, was taken for the *filiformis* of Linnaeus. Other specimens were afterwards referred by botanists to the *C. flava*. At length Dr. Goodenough, having examined the plant in a living state in Devonshire and near Harwich, published it by the name of *extensa* as a new species.

* * * * *



1



CAREX distans.

Loose Carex.

MONOECIA Triandria

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPRC. CHAR. Sheaths elongated, nearly as long as the flower-stalks. Spikes oblong, very remote. Scales pointed. Stem smooth.

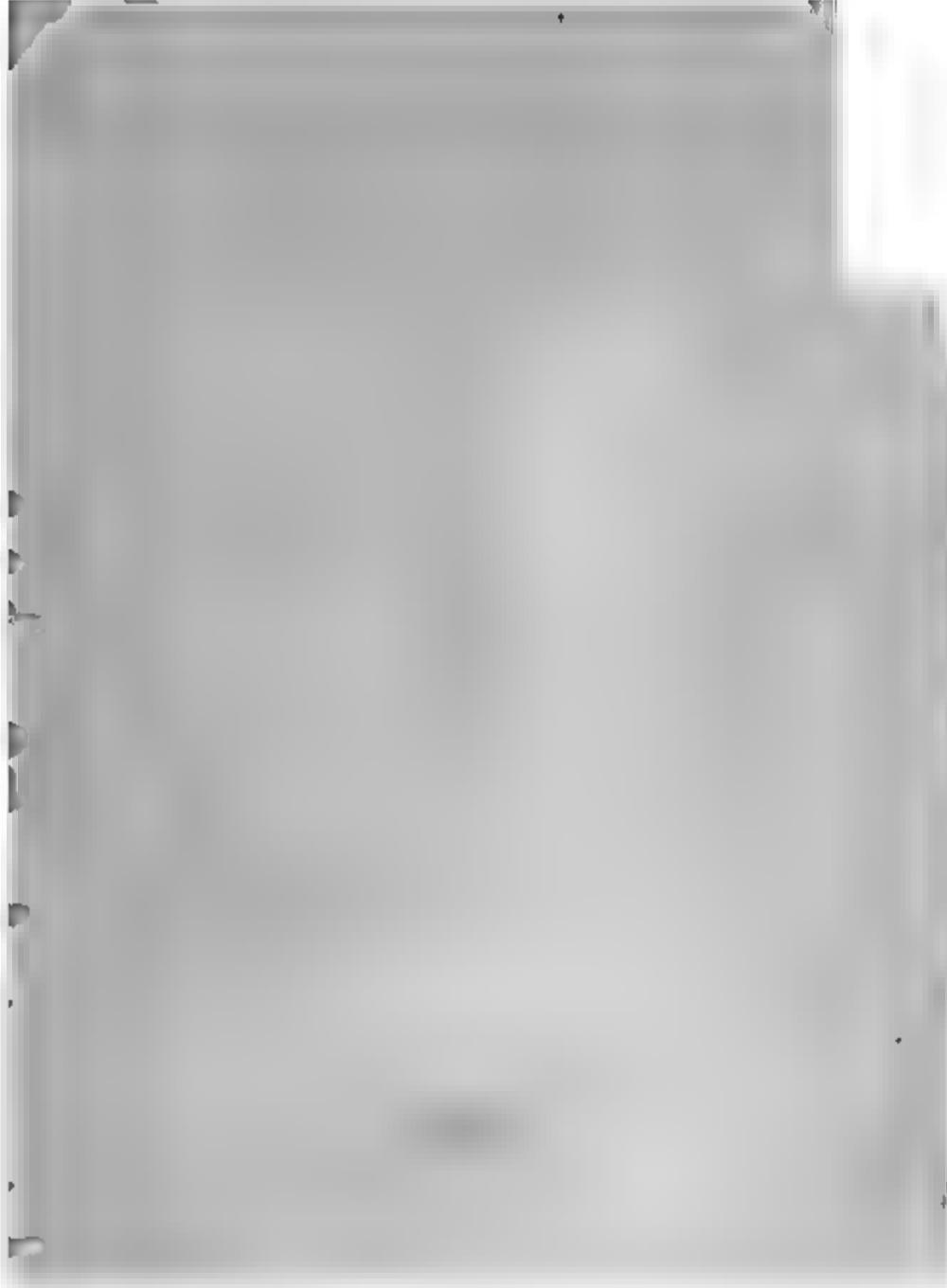
SYN. *Carex distans.* *Linn. Sp. Pl.* 1987. *Sm. Fl. Brit.* 993. *Gooden. Tr. of Linn. Soc.* v. 2. 178. *Huds.* 412. *With.* 100. *Hull.* 207. *Reh.* 368. *Sibth.* 31. *Abbot.* 202. *Schkuhr.* n. 87. t. T. f. 68. *Gramen cyperoides spicis parvis longissimè distantibus.* *Raii Syn.* 420.

THIS Carex most frequently occurs in such marshy places as are not remote from the sea, but it is sometimes found in mountainous countries. Our specimen grew at Yarmouth. It is perennial, and flowers in June.

Root fibrous. Stem 12 to 18 inches high, weak but nearly



Illustration by Jim Steranko



5

2

[1235]

CAREX binervis.

*Green-ribbed Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, *Catkin imbricated. Cal.* of one scale. *Cor.* none. Female, *Catkin imbricated. Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. *Seed clothed with a swelling tunic.*

SPEC. CHAR. Sheaths elongated, shorter than the flower-stalks. Spikes cylindrical, remote, often compound. Scales pointed. Fruit with two principal ribs.

Syn. *Carex binervis.* *Sm. Tr. of Linn. Soc.* v. 5. 263.
Fl. Brit. 993.

C. distans. *Lightf.* 561.

WE have received this from Mr. Brunton, who gathered it near Rippon, and from various parts of Britain. Prof. Beattie informs us that it is very common on the driest moors or heaths about Aberdeen, flowering in June. From Lightfoot's description it appears to be his *C. distans*, and indeed the best bot-

Tab. 1236



Fig. 1236 Redrawn by S. Swamy Iyer





[1099]

CAREX præcox.

Vernal Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. Cal. of 1 scale. Cor. none. Female, Catkin imbricated Cal. of one scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths short, nearly equal to the flower-stalk. Spikes ovate, rather clustered. Glumes tipped with a small point. Fruit roundish, downy.

SYN. *Carex præcox.* Sm. Fl. Brit. 994. Gooden. Tr. of Linn. Soc. v. 2. 170. Willd. 97. Hull. 206. Reib. 367. Sibth. 29. Abbot. 205.

C. saxatilis. Huds. 408.

Gramen cyperoides vernum minimum. Rau Sjz. 421.

DRY pastures, heaths, and exposed situations abound with this Carex, which is rendered conspicuous in the spring by its numerous tufted yellow antheræ. It is the earliest of its genus, in this country as well as in Germany. The name of *præcox* was first given, we believe, by the celebrated Professor Schreber, for Linnaeus never determined this species, and our British botanists erroneously considered it as either *saxatilis* or *mentana* of the illustrious Swede.

Its perennial root creeps, and branches out into several leafy tufts. The stem ascends obliquely to the height of from 3 to 6 inches, and is firm, triangular, smooth and naked. Leaves radical, short, rigid, acute, recurved, roughish, especially at the edges. Bractæe erect, often wanting; their sheaths short, dilated upwards. Male spike obovate, and rather obtuse, especially when the antheræ are not expanded. Glumes elliptical or ovate, those of the female spikes more particularly pointed. Female spikes about two, erect, near together, on shortish stalks. Fruit roundish, or somewhat pear-shaped, downy, green tipped with brown, scarcely so long as the glumes. Stigmas three. Seed whitish, triangular.





2

2

1

2

3

4



[2046]

CAREX tomentosa.

*Downy-fruited Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, Catkin imbricated. Cal. of one scale. Cor. none. Female, Catkin imbricated. Cal. of one scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths extremely short. Female spikes nearly sessile, cylindrical, obtuse. Glumes elliptical, acute. Fruit downy.

SYN. *Carex tomentosa.* Linn. Mant. 123. Sm. Fl. Brit. 996. Tr. of Linn. Soc. 1. 5. 269. Leers. 200. t. 15. f. 7. Dicks. Dr. Pl. 43.

THE late Mr. Robert Teesdale, F.L.S., a most acute and indefatigable British botanist, is the only person, to the best of our knowledge, who ever gathered this species of *Carex* in Britain. He found it, flowering in June, in meadows near Merstone Measey, Wiltshire, in 1799, and thus its name is restored to the list of British plants, from which it had been erased since the learned Bishop of Carlisle discovered the *C. tomentosa* of Lightfoot and Hudson to be the *Lionian filiformis*.

The root creeps, with long and compound fibres. The stems are a foot or more in height, erect, naked, with three sharp angles rough upwards. Leaves shorter than the stem, upright, flat, grass-green, rough on both sides and at the edges. Bracteas leafy, rather spreading, the longest rising somewhat above the stem, with scarcely any sheath. Male spike lanceolate, bluntish, with lanceolate, rusty scales having green keels, the upper ones occasionally pointed. Female spikes usually two, not very distant, almost sessile, cylindrical, blunt, various in length, their glumes elliptic-ovate, slightly pointed, rusty with broad green keels. Fruit about as long as the scales, crowded, roundish, scarcely at all compressed and but slightly triangular, green clothed with short dense whitish down, which turns tawny by long keeping. The beak is short and cloven. Seed pale, obscurely triangular.



2065

Cyperus sp. - 2065





C A R E X *rigida.*
Rigid Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Stigmas two. Sheaths none. Spikes ovate; the upper ones sessile. Leaves rigid and somewhat recurved. Fruit rather compressed, entire.

SYN. *Carex rigida.* *Gooden.* *Tr. of Linn. Soc.* v. 2. 193. t. 22. f. 10. *Sm. Fl. Brit.* 997. *With.* 106. *Hull.* 208.

C. saxatilis. *Fl. Dan.* t. 159.

Cyperoides germanicum, foliis brevibus rigidis acutis, caule rotundo-triquetro, spicis parvis, squamis obtuse mucronatis, capsulis oblongis turbinatis, in angustum et longiusculum apicem attenuatis. *Mich. Gen.* 61. t. 32. f. 4.

WHEN I showed the late Mr. Hudson my original specimen of this Carex, gathered on the top of Ben Lomond in 1782, and called *saxatilis* by the Scottish botanists, he told me he had found the same on Snowdon. It is not however his *saxatilis*, which is *præcor* of *Fl. Brit.* The present Bishop of Carlisle first clearly distinguished and named the plant before us. Mr. Mackay sent our specimen.

It grows on the exposed summits of the loftiest mountains, flowering in June or July, and is known by its rigid firm habit and recurved leaves. The root is creeping, with thick downy fibres. Stem from 3 to 6 inches high, mostly incurved, with three sharp rough angles. Leaves rigid, somewhat glaucous, permanent, with rough edges and keel. Bractea generally shorter than the stem, articulated at the base. Male spike mostly solitary, short, thick, ovate, blunt, with abrupt pointless glumes of a dark brown, with a pale narrow keel. Female spikes generally 3, ovate, the 2 upper ones sessile near the male; the other distant, on a short stalk, erect, with elliptical blunt glumes. Fruit crowded, compressed; smooth, longer than the glumes, brown where exposed, entire, sometimes beaked. Stigmas 2.

2047



1 copy published by J. C. Smirky London.

2





[1505]

C A R E X panicea.
Pink-leaved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of one scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Sheaths elongated, about half the length of the flower-stalks. Female spikes rather loose, distant. Fruit inflated. Stem smooth.

SYN. *Carex panicea*. *Linn. Sp. Pl.* 1887. *Syn. Pl. Brit.* 993. *Gooden. Tr. of L. Soc.* v. 2. 179. *Huds.* 410. *With.* 100. *Hull.* 207. *Reh.* 368. *Sibth.* 30. *Abbot.* 205. *Schkuhr. Car.* n. 93. *t. L. I. f.* 100.

Gramen cyperoides, foliis caryophylleis, spicis e rarioribus et tumidioribus granis compositis. *Raii Syn.* 418. *Pluk. Phyt.* t. 91. f. 7.

NOT uncommon in moist pastures and meadows, flowering in May and June.

Root creeping, blackish. Stem erect, 10 to 15 inches high,



1805





[1506]

CAREX retrorsa.
Glossy Heath Carex.

MONOCLE Fructus.

Gen. Char. Male, Cystis infuscated. Col. of one
scale. Cor. none. Female, Cystis infuscated.
Col. of one scale. Cor. none. Stigmas 2 or 3.
Sili culmata with a swelling near

Spes. Char. Shining shiny. Female spikes cylindrical,
smooth. Fruit elliptical, triangular, roughish.
Dark purple.

Spec. Carex retrorsa. Flora 412. See R. Briz. 999.
Gmelin T. v. L. Fl. v. 2. 154. Wurth 102.
Bol. 202. Flora 999. Schlecht 52. Abder. 206.
R. Briz. 2. 155.

Carex retrorsa. In its composition, spike oblong
expanding longitudinal portion. Flora Spec. 412.

Very common in pastures, grasses and the moist parts of
over hilly roads, where it shows glossy leaves under it
the flowers are yellowish green, and the fruit is

2606





[REDACTED]

2

[2236]

CAREX Micheliana.

*Blunt-fruited Black Carex.**MONOECIA Triandria.*

GEN. CHAR. Male, *Catkin imbricated. Cal.* of one scale. *Cor.* none. Female, *Catkin imbricated. Cal.* of one scale. *Cor.* none. *Stigmas 2 or 3.* *Seed clothed with a swelling tunic.*

SPEC. CHAR. Spikes upright, cylindrical; the female ones stalked. Glumes all obtuse and pointed. Fruit obovate, very blunt.

SYN. *Carex Micheliana.* *Sm. Tr. of Linn. Soc.* v. 5. 270. *Fl. Brit.* 1004.

C. ambleocarpa. *Willd. Sp. Pl.* v. 4. 307.

Cyperoides foliis caryophylleis, caule exquisitè triangulari, spicis habitioribus, squamis curvis, obtusè mucronatis, capsulis turbinatis brevibus confertis. *Mich. Gen.* 62. t. 32. f. 12.

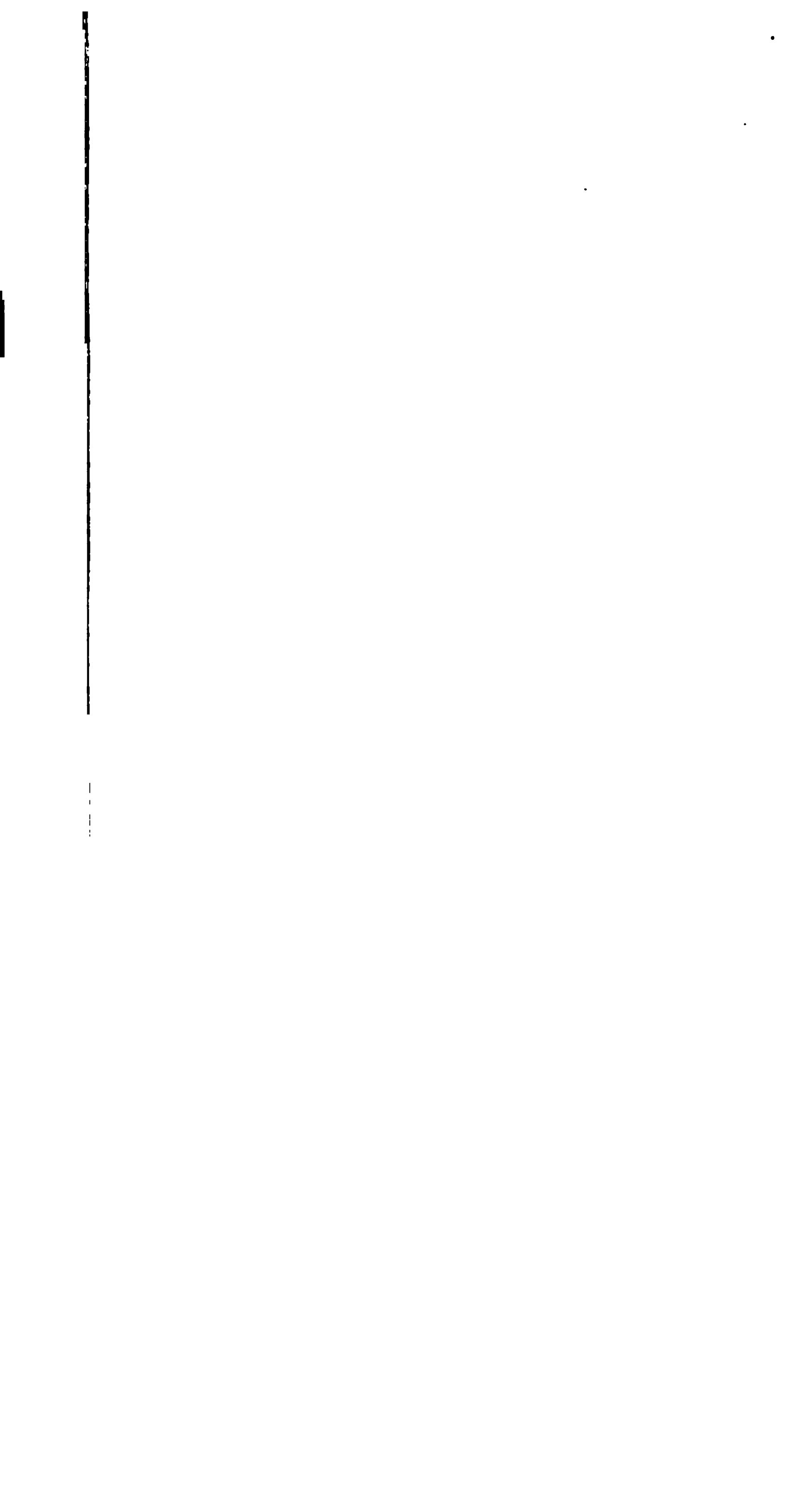
THE introduction of this, as a distinct species, into the *Flora Britannica* having led botanists into a mistake, we judge it right to lay before them all the sources of our error, by exhibiting a plate of the specimen on which it was founded.





2230





107



This plate supplied to the Library London

CAREX stricta.

Glaucous straight-leaved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Stigmas two. Bracteae not sheathing, slightly auricled. Spikes nearly sessile, cylindrical, elongated, acute. Fruit deciduous.

SYN. *Carex stricta.* *Gooden. Tr. of Linn. Soc.* v. 2. 196. t. 21. f. 9. *Sm. Fl. Brit.* 1000. *Wub.* 107. *Hull.* 208.

C. cæspitosa. *Huds.* 412. *Ligbt.* 561, β.

Gramen cyperoides foliis caryophylleis, spicis erectis sessilibus, e seminibus confertis compositis. *Ray* *Syn.* 418.

THIS *Carex*, though known to Ray, has not been generally distinguished by modern botanists from the *cæspitosa*, till Dr. Goodenough clearly discriminated them in his excellent paper. They agree in having only 2 stigmas, no sheaths to





3

[580]

C A R E X acuta.

*Slender-spiked Carex.**MONCEIA Triandra.*

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale.
Cor. none. Female, Catkin imbricated. *Cal.* of
 1 scale. *Cor.* inflated, permanent. *Seed* trian-
 gular, invested with the corolla.

SPEC. CHAR. Stigmas two. Spikes cylindrical, slender; the female ones drooping when in flower, erect in fruit. Corolla pointed, entire.

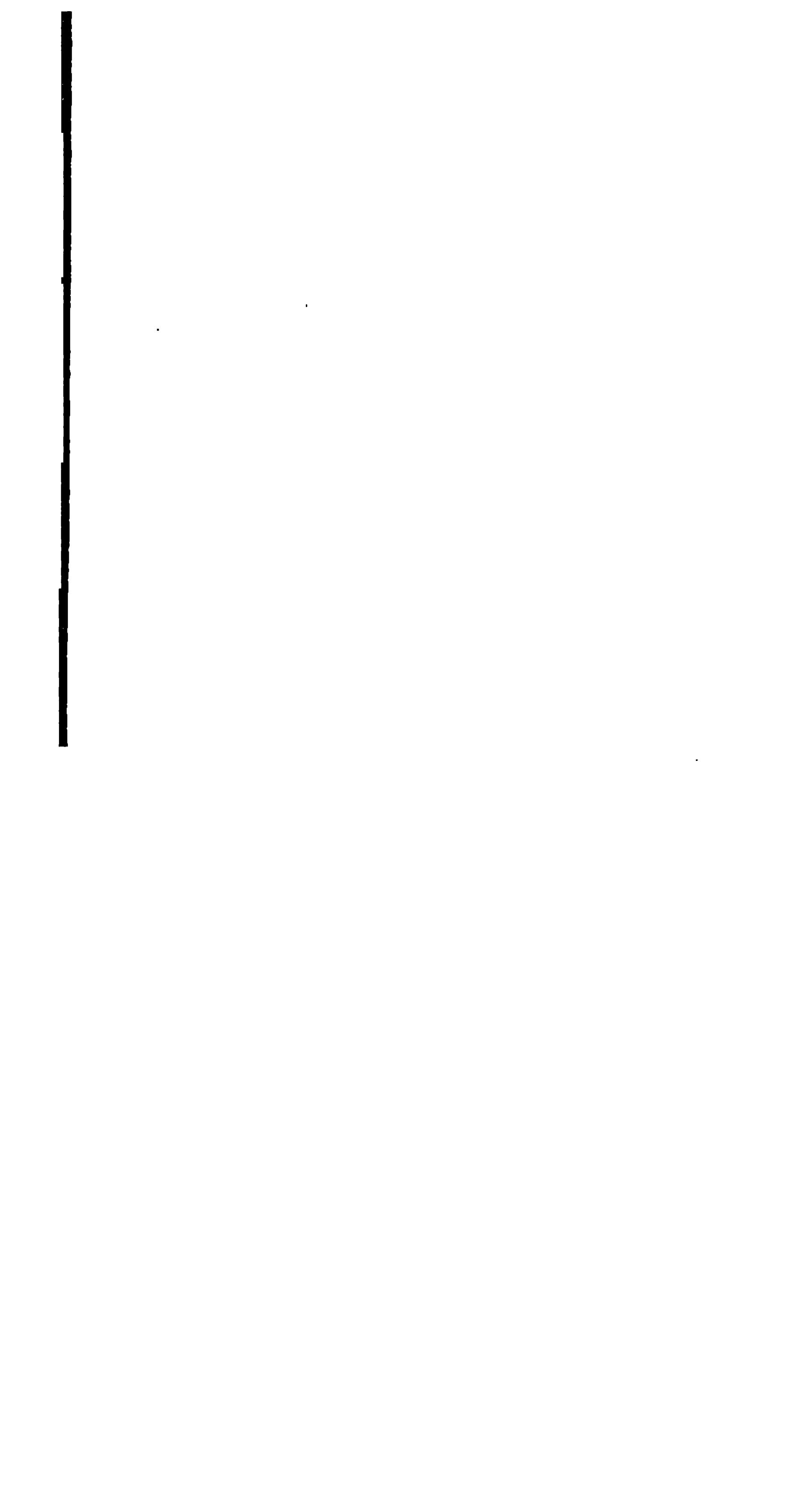
SYN. *Carex acuta*: *Gooden. Tr. of Linn. Soc.* v. 2.
 203. *Witb.* 109. *Linn. Sp. Pl.* 1388, a. *Fl.*
Succ. 334, β. *Huds.* 413, β.

C. gracilis. *Curt. Lond. fasc.* 4. t. 62. *Rehb.* 357.
Sibtb. 32.

Grainia cyperoides majus angustifolium. *Raii Syn.*
 417.

EQUALLY common with the last in similar situations, flowering in May, being according to Mr. Curtis's obser-
 vations a week or two later than that. This is certainly what
 Linnaeus intended for *C. acuta* in both editions of his *Species
 Plantarum*, whatever he might at different periods erroneously
 suppose concerning the other species of the genus.







CAREX paludosa.
Lesser Common Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin imbricated. Cal.* of 1 scale. *Cor.* none. Female, *Catkin imbricated. Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spikes cylindrical, bluntish, erect; the female with awn-pointed scales; the male with blunt ones. Fruit elliptical, notched.

SYN. *Carex paludosa.* *Gooden. Tr. of Linn. Soc.* v. 2. 203. *Sm. Fl. Brit.* 1002. *With.* 108. *Hull.* 209.

C. acuta. *Oort. Lond. fasc.* 4. t. 61. *Huds.* 413, 7.

Graea cyperoides minus, angustifolium. *Dill. in Rici Svc.* 418.

WE have already alluded to this *Carex* in describing the *riparia* and the *acuta* in our 9th volume, t. 579 and 580. It is found in watery places, like them, and is full as common in the same localities, flowering in May. The root is perennial,



1

1

1



C

C A R E X *riparia.*
Great Carex.

MONŒCIA Triandria.

GEN. CHAR. Male, Catkin imbricated. *Cal.* of 1 scale. *Cor.* none. Female, Catkin imbricated. *Cal.* of 1 scale. *Cor.* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Spikes oblong, acute; the male with lanceolate scales; the female with awn-pointed ones. Corolla ovato-lanceolate, forked at the tip.

SYN. *Carex riparia.* *Cart. Lond. fasc.* 4. t. 60. *Gooden. Tr. of Linn. doc.* v. 2. 200. *Wittb. icb.* Relb. 356. *Sibth. 31. abbott. 206.*

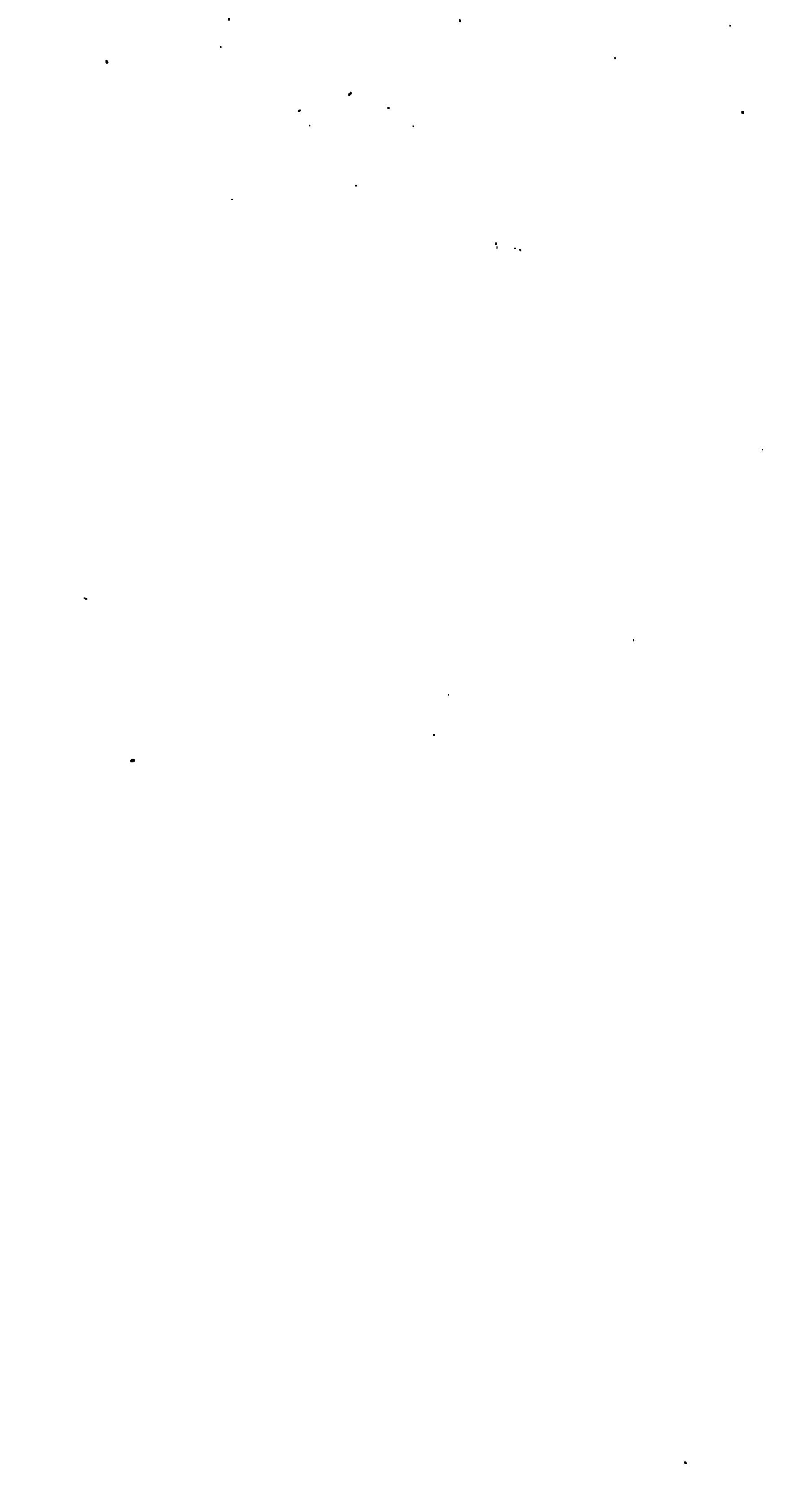
C. acuta. *z. Huds.* 413.

Gramen cyperoides cum paniculis nigris. *Ran Sym.* 417.

ONE of our most common species of *Carex* at the banks of ditches and rivers, and in most watery places, flowering about April or May, and distinguished from all others by its greater size. There are indeed two more species, which had generally in England been confounded with this, till Mr. Curtis clearly determined their differences in the 4th fasciculus of his *Flora*, the *paludosa* and *acuta* of Dr. Goodenough. Linnaeus co-confounded all three together under his *acuta*.

C. riparia has a strong, widely creeping, perennial root. Stem two or three feet high, leafy, with three sharp rough angles, which, like the edges of the leaves, cut like a fine saw. Leaves broad, sharp, erect, deep-green, a little glaucous beneath; those on the stem having a sheathing reticulated base. Spikes alternate, one of them terminal, about 3 of each sex, but the upper female ones generally terminate in several male flowers. The scales of the males are lanceolate, generally pointed, often blunt; those of the females, especially the lower ones, blunt, tipped with a sharp rough awn, one great mark of the species. The stigmas are three. The permanent corolla cleft at the tip, and ribbed. The male spikes are triangular, generally acute, but sometimes blunt.





[1387]

*CAREX laevigata.**Smooth-stalked Beaked Carex.*

MONOECIA Triandria.

GEN. CHAR. Male, Catkin imbricated. Cal. of 1 scale.
Cor. none. Female, Catkin imbricated. Cal. of 1 scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.

SPec. CHAR. Spikes cylindrical: the female ones on stalks. Sheaths very long. Glumes pointed. Fruit triangular, with a cloven beak.

SYN. *Carex laevigata*. *Syn. Tr. of Linn. Soc. v. 5. 272.*
F. Brit. 1005.

C. strobipila. Schkuhr. *Caric. 107. n. 91. t. Z. f. 83.*

Our specimens were gathered July 3d by Mr. E. Forster in a boggy ditch near Writtle Common, Essex. The same gentleman has found this species in Cornwall and Sussex. It was first observed in Scotland; see *Fl. Brit.*; but has been overlooked by most botanists. Schkuhr had it from the isle

2387



2387



卷之三

~~1957-1958~~ ~~1958~~ ~~1959~~

100% EASY

Mr. H. W. H. was present at the meeting.

~~THE STATE OF TEXAS. DATED,
AT THE CITY OF SAN FRANCISCO,
EXCELSIOR.~~

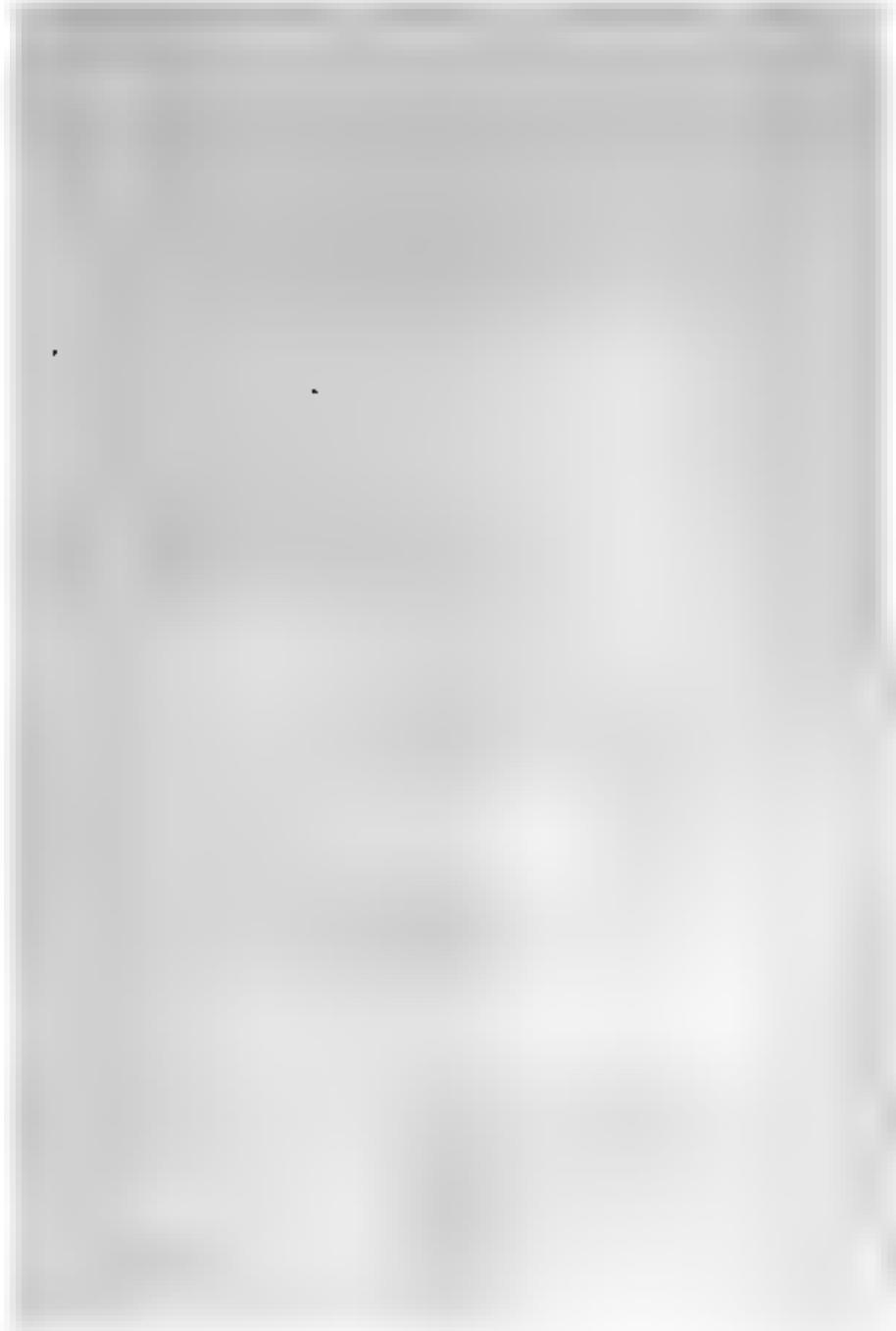
Mr. John Weller, Mr. W. H. Johnson, and Mr.
W. L. Foy, Mr. Charles T. C. Lee, Mr.
John T. Moore, Mr. George Smith,
John E. Moore, and Mr.

— T H E R E S E E M M A L E G G —

White-tailed Kite (M. albicollis). Found throughout
central America. See p. 420.

Lathyrus sp. luteus Linn. The yellow-flowered species is found in
the mountains and higher parts, though not very frequently.
It seems to be most common in the northern or mountainous
parts. It may also be seen well back the water-works at
Fonthill and elsewhere about the Thames. It flowers in May.
Root creeping and running. Stems upright, 2 feet high,





CAREX *ampullacea*.*Slender-beaked Bladder Carex.***MONOECIA** *Tundra.*

GEN. CHAR. Male, *Catkin imbricated*. *Cal.* of 1 scale.
Cor. none. Female, *Catkin unbricated*. *Cal.* of
 1 scale. *Cor.* none. Stigmas 2 or 3. Seed clothed
 with a swelling tunic.

SPEC. CHAR. Female spikes cylindrical, elongated,
 nearly sessile. Sheaths none. Fruit inflated, with
 a linear forked beak.

SYN. *Carex ampullacea*. *Gooden. Tr. of Linn. Soc.*
 v. 2 207. *Sm. Pl. Brit.* 1006. *With. 115. Hull.* 209.

C. vesicaria. *Huds. 413. Lightf. 566.*

C. rostrata. *Sibth. 32. Abbot. 206.*

*Grauen cyperoides polystachyon majus, spicis ter-
 tibus erectis.* *Ray Syn. 419.*

THIS Carex is also most common in Scotland and the northern counties; in the south it more rarely occurs. It is plentiful at Seething in Norfolk. We received our specimen by favour of Mr. J. Holme of Peter-house, Cambridge, from a watery gravel-pit near that town, where the plant was first remarked by the Rev. Mr. Newton, F. L. S. It is not a Linnaean species, and has been much mistaken by different botanists. Hudson quotes a synonym of Ray which belongs to our *vesicaria*, subjoining its proper denomination as a variety. Dr. Stokes first well illustrated it by the name of *rostrata*, in Dr. Withering's 2d edition. It flowers in May.

Root creeping, perennial. Stem with 3 blunt angles, which below the lower bractea are smooth. Leaves narrow, rather glaucous. Male spikes 2 or 3, very slender, with bluish scales; female 2 or 3, with generally sharper ones. These female spikes are longer and more slender than those of *C. ves-
 caria*, consisting of numerous spreading yellowish inflated roundish fruits, each terminating in a linear beak, nearly of its own length, which is cloven at the point. Seed small, crowded with the long style.



C A R E X hirta.

*Hairy Carex.**MONŒCIA Triandria.*

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* hollow, permanent, investing the seed.

SPEC. CHAR. Hairy. Spikes short, cylindrical, remote. Sheaths nearly equal in length to the flower-stalks. Scales awned. Fruit hairy.

SYN. *Carex hirta.* *Linn. Sp. Pl.* 1389. *Gooden. Tr. of Linn. Soc.* v. 2. 208. *Huds.* 414. *Witb.* 111. *Hull.* 209. *Rclb.* 357. *Sibtb.* 33. *Abbot.* 207. *Dicks. H. Sicc. fasc.* 11. 16.

Gramen cyperoides polystachyon lanuginosum. *Rai Syn.* 418.

THIS species of *Carex* belongs to that division of the genus in which the male spikes are more than one. It is not uncommon to meet in woods and other wet places, floating on









C A R E X filiformis.
Slender-leaved Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin imbricated. Cal. of 1 scale.*

Cor. none.

Female, *Catkin imbricated. Cal. of 1 scale. Cor. none.*

Stigmas 2 or 3. Seed clothed with a swelling tunic.

SPEC. CHAR. Spikes ovate; males generally two.

Sheaths nearly as long as the flower-stalks. Scales pointed. Fruit downy. Leaves channelled, smooth.

SYN. *Carex filiformis. Linn. Sp. Pl. 1385. Gooden.*

Tr. of Linn. Soc. v. 2. 172. t. 20. f. 5. Sm. Fl.

Brit. 1008. Witb. 97. Hull. 207.

C. tomentosa. Lightf. 553. Huds. 650.

C. hirta. Fl. Dan. t. 379, except the separate spike.

THE late Dr. Hope having received specimens of this *Carex* from some meadows near Ayr, made it known to Mr. Lightfoot, who took it for the *tomentosa* of Linnaeus. (See *Tr. of L. Soc.*) It has since been gathered by Mr. Mackay in several other parts of Scotland. The Rev. Mr. Williams has found



904



ERIOCAULON septangulare.*Jointed Pipewort.**MONOCIA Triandra.*

GEN. CHAR. Common Calyx of many leaves, many-flowered : partial of 2 or 3 leaves. Cor. in 2 or 3 segments.

Male fl. in the middle of the disk. Female in the border. Siges 2 or 3. Caps. 2- or 3-lobed. Seeds solitary.

SPEC. CHAR. Stem with 7 angles. Leaves pointed, formed of a network of cells. Male florets of 1 petal with 4 stamens.

SYN. Eriocaulon septangulare. *Sm. Fl. Brit.* 1010.
Witt. 184. *Sw. Syn.* 41.

E. decangulare. *Hall.* 29. *Licht.* 569.

Nesmythia articulata. *Huds.* 415.

A LESS general inhabitant of alpine lakes than even the *Sabularia*, t. 732; for we know not that it has been found in any other part of the world than the Isle of Skye, from whence





*LITTORELLA bonin**Flamin' Harvized**MICROLELLA Formosa*

Gen. Catt. Male. L. 4 mm. Cr. of one petal,
which is very long.

Female. L. same. Cr. of one petal, unequally
long. The stamens very long. Nut of one
mm.

Spec. Char. ---

Spec. Littoral areas. Imm. Nov. 23; 3. Haif. 415.
This is the last petal.

Polygonum *boninense* Imm. Is. Pl. 16.

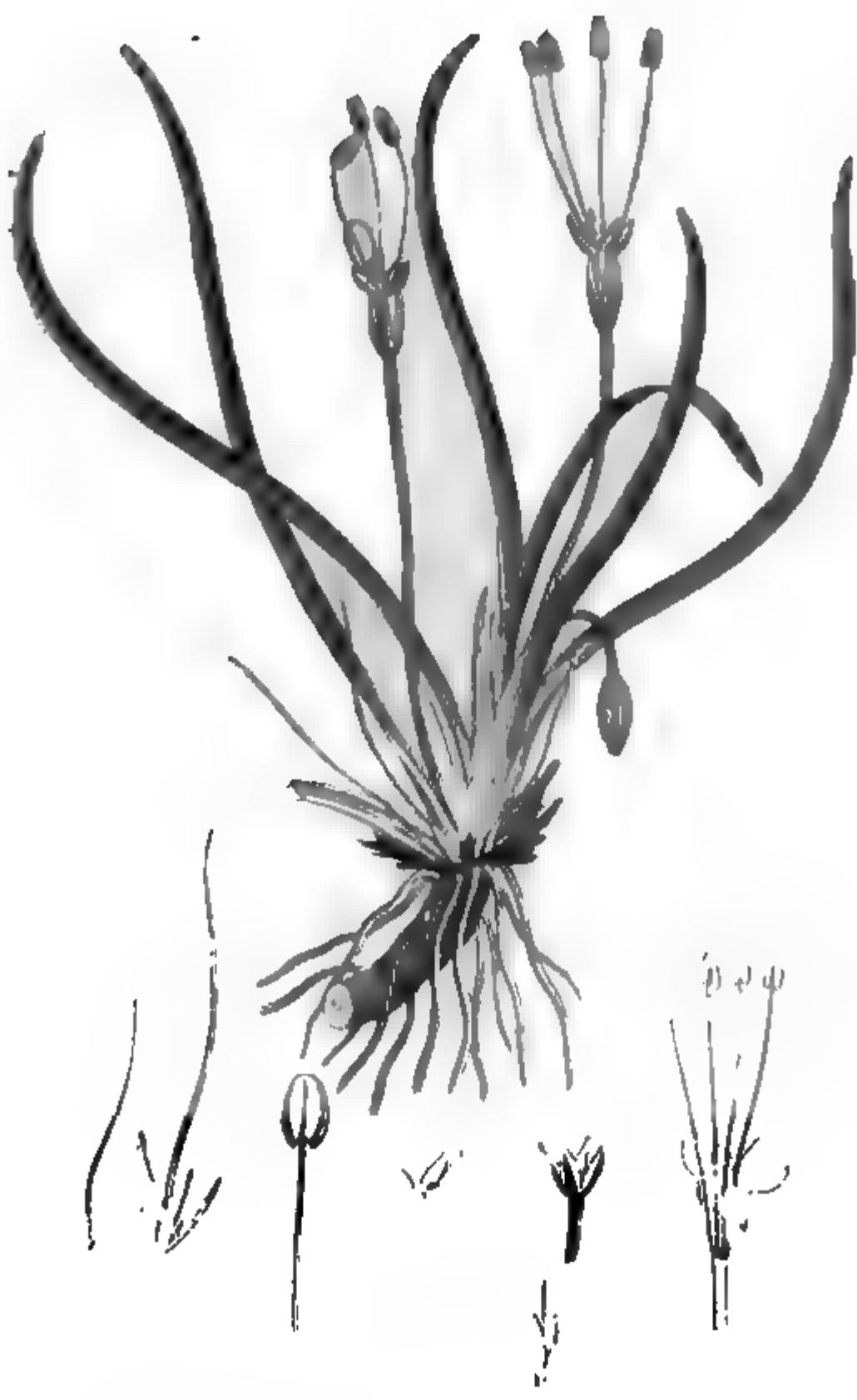
2 flowers found. This includes, Pacifica;
San Fran. 3/21

A small plant with hairy leaves in various parts of Great
Banks, where it is common. Sir T. G. Collier, Bart.
found it at Japoway in Formosa, Sennak, flowering in
June 1871.

The whole plant is that of a perennial. Root perennial, long,
spindle-shaped, containing the numerous tuberous fibers. Stem
one. Leaves linear, short, pointed; convex beneath, flat, or
a little undulating above; distinct at the base; very much re-
sembling that of *Polygonum* *boninense*. Male flowers several, so
large as my hand; each flower upright in height as the leaves,
and twice as wide across. Corolla with an inflated
tube. The tube is a small crater-like cavity, exactly as is

the

150



• • • • •



LITTORELLA lacustris.

*Plantain Shore-weed.**MONOECIA Tetrandra.*

SEX. CHAR. Male, *Cul.* 4-leaved. *Cor.* of one petal, 4-cleft. *Stamina* very long.

Female, *Cul.* none. *Cor.* of one petal, unequally 3-cleft. *Style* thread-like, very long. *Nut* of one cell.

SPEC. CHAR. ----

STR. Littorella lacustris. *Linn. Mant.* 295. *Huds.* 415.
Willd. 194. *Rott.* 358.

Plantago uniflora. *Linn. Sp. Pl.* 167.

P. palustris graminco folio mocanthes, *Parisiensis.*
Rott. Syn. 316.

A NATIVE of marshy sandy spots in various parts of Great Britain, though not very common. Sir T. G. Cullum, Bart. shewed it to Mr. Sowerby at Cavenham, Suffolk, flowering in June last.

The whole habit is that of a plantain. Root perennial, long, spindle-shaped, throwing out numerous simple fibres. Stem none. Leaves linear, entire, smooth; convex beneath, flat, or a little channelled above; dilated at the base; very much resembling those of *Plantago maritima*. Male flowers several, solitary, on long simple naked stalks scarcely so high as the leaves, erect. Calyx of 4 equal leaves. Corolla with an inflated tube; the limb in 4 equal concave divisions, exactly as in *Plantago*. Stamina equal, erect, very long and slender. Anthers brownish, 1 mm. long, having filaments on the same







[2526]

BETULA nana.

Dwarf Birch.

MONOECIA Ternaria

Gyn. CHAR. Male. Cat. scale of a catkin, of 1 leaf, 3-flowered. Cor. none. Sessile 13—12. Female. Cat. scale obscurely 2-clift 3-flowered. Cor. none. Sessile 2. Seeds compressed winged.

Syn. CHAR. Leaves orbicular, crenate.

Syn. Betula nana. Linn. Sp. Pl. 1534. Fl. Lap. et 2. 274 t. 5. f. 4. See Fl. Bras. 1012. Huds. 416. Willd. 207. Hull. t. 2. 281. Linnae. 575. t. 23. Pallas. Ross. t. I. p. 1. 63. t. 40. f. D—G. Dietr. H. See just. 18. 16.

A CONSIDERABLE degree of celebrity is attached to this shrub, from its frequent mention in the Flora Lapponica, and Tour to Lapland recently published, of Linnaeus. As well as from its being the subject of his fine description in the Species Plantarum. It is by no means rare in Scotland, from whence our wild specimen came, yet it was not known to British botanists till Sir James Nasmyth made the discovery about 40 years ago.

The shrubby, rigid, much branched stem is about a yard high, with a floured bark, slightly hairy on the young twigs. Leaves alternate, on short stalks, of a circular form, sometimes abrupt and laciniate-shaped, strongly and conspicuously crenate, rigid, smooth, covered with white, downy hair. Buds with concave pointed scales. The male catkins grow from basal leaves buds, and are sessile, cylindrical, dark brown, one third of an inch in length, appear in May when the young leaves are beginning to expand. The female ones terminate bare short twigs, with two leaves at the base, and are sessile, abrupt, and green, with red styles. However valuable to the domestic economy of the poor Laplanders, this shrub is scarcely known out of the most northern parts of Europe.

2320



2320 - Malvaceae



[2326]

BETULA nana.

*Dwarf Birch.**MONOECIA Tetrandra.*

GEN. CHAR. Male, *Cal.* scale of a *catkin*, of 1 leaf, 3-flowered. *Cor.* none. *Stam.* 10—12. Female, *Cal.* scale obscurely 3-cleft, 3-flowered. *Cor.* none. *Styles* 2. *Seeds* compressed, winged.

SPEC. CHAR. Leaves orbicular, crenate.

SYN. *Betula nana.* Linn. Sp. Pl. 1394. *Fl. Lapp.* ed. 2, 274. t. 6. f. 4. *Sm. Fl. Brit.* 1012. *Huds.* 416. *With.* 207. *Hult. ed. 2.* 281. *Lights.* 575. t. 25. *Pallas. Ross.* v. 1. p. 1. 63. t. 40. f. D—G. *Dicks. H. Sicc. fasc.* 18. 16.

A CONSIDERABLE degree of celebrity is attached to this shrub, from its frequent mention in the *Flora Lapponica*, and *Tour to Lapland* recently published, of Linnaeus, as well as from its being the subject of his first dissertation in the *Annenates Academicæ*. It is by no means rare in Scotland, from whence our wild specimen came, yet it was not known to British botanists till Sir James Nasmyth made the discovery about 40 years ago.

The shrubby, rigid, much branched stem is about a yard high, with a blackish bark, slightly downy on the young twigs. Leaves alternate, on short stalks, of a circular form, sometimes abrupt and kidney-shaped, strongly and unequally crenate, rigid, smooth, reticulated with veins, deciduous. Buds with concave fringed scales. The male catkins grow from lateral leafless buds, and are sessile, cylindrical, dark brown, one third of an inch in length, appearing in May when the young leaves are beginning to expand. The female ones terminate little short shoots, with two leaves at the base, and are ovate, shorter, and green, with red styles. However valuable in the domestic œconomy of the poor Laplander, this shrub is scarcely known out of the most northern parts of Europe.

2320



Malva sp. (L.)



[1508]

B E T U L A *Alnus.**Common Alder.**MONOECIA Tetrandria.*

Gen. Char. Male. Cal. scale of a *catkin*, of 1 leaf, scutell., 3-flowered. Cor. 4-cleft.

Female, Cal. scale obscurely 3-cleft, 2-flowered. Styles 2. Seeds compressed.

Spec. Char. Flower-scals branched. Leaves roundish, somewhat wedge-shaped, waved, serrated, glutinous; downy at the branching of the veins beneath.

Syn. *Benula Alnus.* *Linn. Sp. Pl.* 1394, a. *Sm. Fl. Brit.* 1013. *Huds.* 416. *With.* 206. *Hull.* 210. *Reich.* 374. *Siebold.* 64. *Attel.* 207.

Alnus. *Raii Syn.* 442. *Ger. em.* 1477.

A VERY general tree in boggy grounds about lakes or rivulets, throwing its broad arms and umbrageous foliage with much picturesque effect over the still reedy pool, and supplying the want of the oak in such parts of a landscape. It blossoms in March, or early in April, but the leaves are not

fully developed until the middle of May, when they are fully expanded.

The wood is hard, strong, and durable, and is used for posts, piles, &c.

The bark is rough and blackish, and the trunk is often hollowed out for use.

The leaves are alternate, simple, ovate-lanceolate, serrated, and have a distinct midrib.

The flowers are monoecious, and are produced in catkins.

The fruit is a nut, which is enclosed in a cupule.

The wood is used for posts, piles, &c.

The bark is rough and blackish, and the trunk is often hollowed out for use.

The leaves are alternate, simple, ovate-lanceolate, serrated, and have a distinct midrib.

The flowers are monoecious, and are produced in catkins.

The fruit is a nut, which is enclosed in a cupule.

The wood is used for posts, piles, &c.



[1341]

BUXUS sempervirens.*Box-tree.****MONOECIA* Ternaria.**

GEN. CHAR. Male, *Cal.* of 3 leaves. *Petals* 2. Rudiment of a *germen*. Female, *Cal.* of 4 leaves. *Petals* 3. *Caps.* with 3 beaks, 3 cells, and 2 seeds in each cell.

SPEC. CHAR.

SYN. *Buxus sempervirens*. *Linn. Sp. Pl.* 1394. *Sm.*

Fl. Brit. 1013. *Huds.* 417. *With.* 210. *Hull.* 210.

Buxus. *Raii Syn.* 445.

B.B. angustifolia. *Dill. in Raii Syn.* 445.

THE Box grows on dry chalky hills, but not universally. Ray mentions Box hill in Surrey; Boxwell, Gloucestershire; and Boxley, Kent; three places evidently named from their producing this plant, of which the first-mentioned is the most famous. It is a conical hill, naturally clothed with these



1341



148

U R T I C A pilulifera.

Roman Nettle.

MONCEIA Tetrandria.

GEN. CHAR. Male. *Cal.* 4-leaved. *Cor.* none. *Nectary* in the centre, cup-shaped. Female. *Cal.* 2-leaved. *Cor.* none. *Seed* one, polished.

SPEC. CHAR. Leaves opposite, ovate, serrated. Catkins of fruit globose.

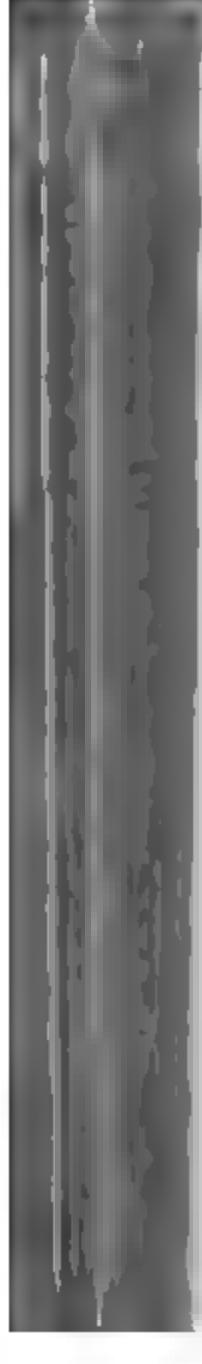
SYN. *Urtica pilulifera.* *Linn. Sp. Pl.* 1395. *Huds. Fl. An.* 417. *Wittb. Bot. Arr.* 1070.

U. pilulifera, folio profundius Urticæ majoris in modum ferrato, semine magno lini. *Raii Syn.* 140.

SENT by Dawson Turner Esq. in July last from Yarmouth, where, as in various parts of the Norfolk and Suffolk coast, this kind of nettle is found growing abundantly among rubbish and stones. Its sting is more painful than either of our common species whose structure is so well illustrated by Mr. Curtis in his *Flora Londinensis*.

This is an annual of very luxuriant growth, about 2 feet high. Stem obtusely angular, often purple. Leaves on longish







[1236]

URTICA urens.

Small Nettle.

MONOECIA Tetrandria.

GEN. CHAR. Male, *Cal.* 4-leaved. *Cor.* none. Rudiment of a germen cup-shaped. Female, *Cal.* 2-leaved. *Cor.* none. Seed 1, superior, polished.

SPEC. CHAR. Leaves opposite, elliptical, about five-ribbed. Clusters nearly simple.

SYN. *Urtica urens*. *Linn. Sp. Pl.* 1996. *Sm. Fl. Brit.* 1015. *Huds.* 417. *With.* 202. *Hall.* 210. *Raii* 574. *Sitt.* 62. *Attal.* 208. *Curt. Lond.* 200. *Fl. & F.* 70.

U. minor. *Raii* *Syn.* 140.

THIS inveterate and prolific weed is sufficiently well known in culturists of every description. It is an annual of quick growth, thriving most on a light soil, and often forming two crops in the course of the year.

The leaves of the second flowers most, brighter green colour,



1236



[1750]

URTICA dioica.

*Great Nettle.**MONOECIA Tetrandra.*

GEN. CHAR. Male, *Cal.* 4-leaved. *Cor.* none. Rudiment of a *germen* cup-shaped. Female, *Cal.* 2-leaved. *Cor.* none. Seed 1, superior, polished.

SPEC. CHAR. Leaves opposite, heart-shaped. Clusters much branched, in pairs, mostly dioecious.

Syn. *Urtica dioica.* *Linn. Sp. Pl.* 1996. *Sm. Fl. Brit.* 1016. *Huds.* 417. *With.* 201. *HuiL* 210. *Reth.* 375. *Sibth.* 62. *Abbot.* 208. *Curt. Lond. fasc.* 6. t. 69.

U. racemifera major perennis. *Raii Syn.* 199.

EVERY body is acquainted with the common perennial Nettle, so abundant in waste places, whether open or shady, blossoming throughout the latter part of summer; but few have perhaps had courage or curiosity enough to investigate parts so strictly guarded, and to perceive that the barren flowers are commonly all from one root, the fertile from another, or,



2750



2750, Malvaceae, non L.



107.

[2544]

XANTHIUM strumarium.

Burweed, or Small Burdock.

MONOECIA Peduncula.

Ges. Char. Male, Common Calyx imbricated. Flores of one petal, funnel-shaped, five-cleft. Receptacle chaffy.

Female. Caps two-leaved, two-flowered. Corolla. Drape dry, mucicated, cloren. Nut of 2 cells.

Sect. Char. Stem without thorns. Leaves heart-shaped, three-ribbed at the base.

Sp. Xanthium strumarium. Linn. Sp. Pl. 1400.

Sw. P. S. 1617. Radd. 418. With. 283.

Scand. 2 27. F. Dan. 1. 970.

Von Linné 290. Rec. Syn. 140.

Bartramia major. Ges. Pl. 209.

THIS plant, though it has been found in several places to the south of London, &c. &c. we have been forced to content ourselves with greater names. It requires a rich, moist, or dampish soil, where it appears to flower in August and September, and is much remarkable for the seed-vessels, which appear scattered in numerous society tufts, covered with hooked spines. These attract numbers to the claws of animals, like the bracts of the true Burdock. *Bartram.* see t. 1226, 2475; which ~~corresponds~~, ~~and~~ is the true English leafer, three-ribbed & other wise, as ~~comes~~ to cover the application of the name. English name in the plants so different = important character. Yet the Latin name is one of those ambiguous generic, which have always set naturalists at hazard, but notwithstanding, and above all, when we find it to differ in texture, as abundantly as here, and more to render inapplicable, the preservation of the Latin name. *Nomina et Dictione.*

2544



Laurier-rose sp. n.



[2212]

AMARANTHUS Blitum.

*Wild Amaranth.**MONOECIA Pentandria.*

GEN. CHAR. Male, *Cal.* of 3 or 5 leaves. *Cor.* none. *Stam.* 3 or 5. Female, *Cal.* of 3 or 5 leaves. *Cor.* none. *Styles* 3. *Capsule* of 1 cell, splitting all round. *Seed* 1.

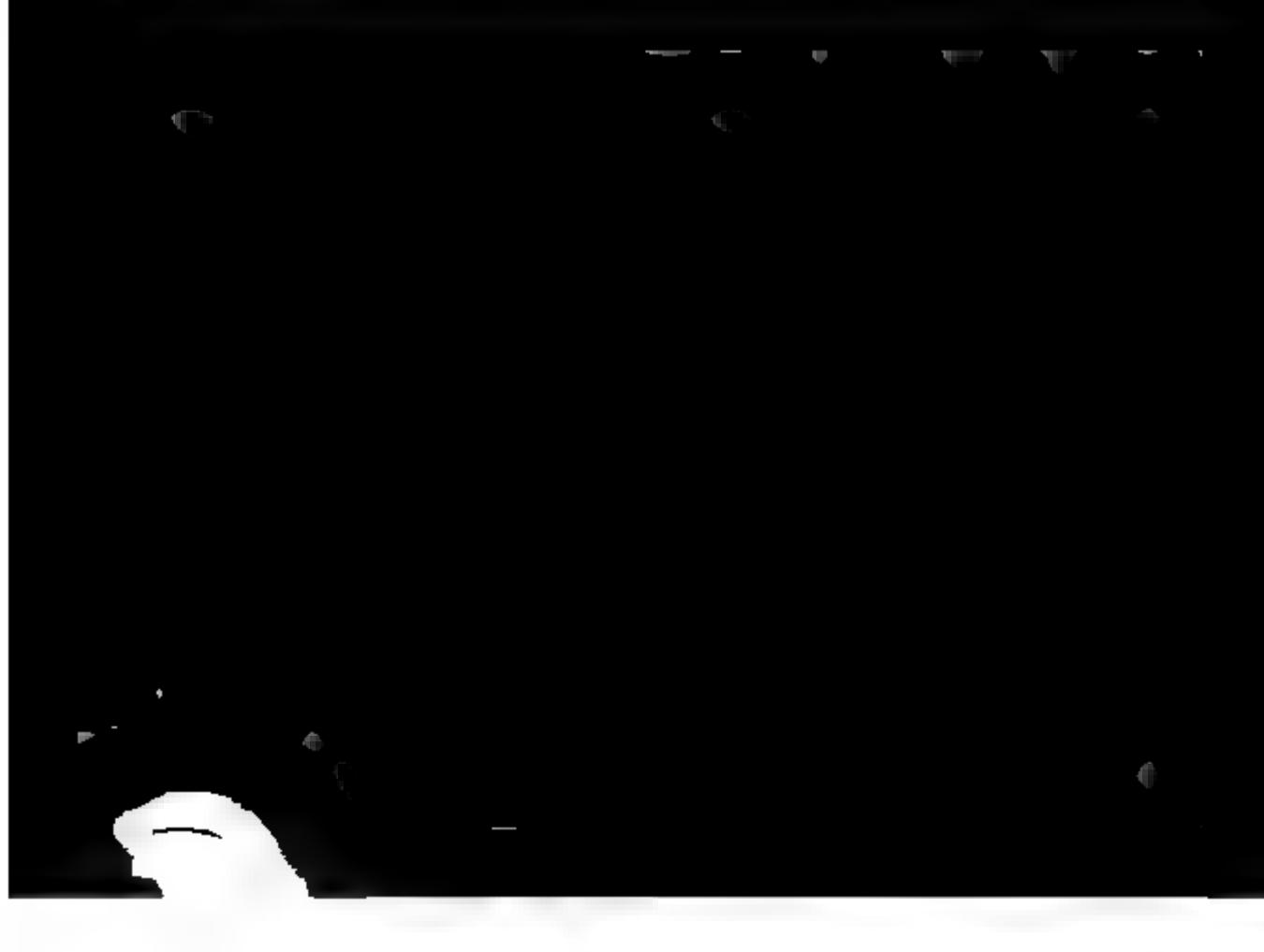
SPEC. CHAR. Flowers three-cleft and triandrous, in small lateral tufts. Leaves ovate. Stem diffuse.

SYN. Amaranthus Blitum. *Linn. Sp. Pl.* 1405. *Sm. Fl. Brit.* 1018. *Huds.* 418. *With.* 174. *Hull. ed.* 2. 279. *Reh.* 375.

Blitum rubrum minus. *Dill. in Raii Syn.* 157.

THIS dung-hill plant is more frequent about London than elsewhere. Mr. Dickson, to whom we are obliged for our specimen, gathered it in the rich soil of Battersea fields. It is annual, bearing its little inconspicuous blossoms in August, and seeding plentifully in that month and the following.

The habit is rather that of an *Atriplex* than of such of its more specious congeners as decorate our gardens. The stems







B R Y O N I A dioica.

Red-berried Bryony.

MONOCIA Syzecria

GES. CHAR. Male, Cal. 5-toothed. Cor. 5-cleft. Filaments 3. Antheræ 5.

Female, Cal. 5-toothed. Cor. 5-cleft. Style 3-div. Berry inferior, roundish, with many seeds.

SPEC. CHAR. Leaves palmate: rough on both sides with callous points. Male and female flowers on separate plants.

SYS. *Bryonia dioica.* *Wittb.* 67. *Sibtb.* 81. *Jacq. Austr.* v. 2. t. 199.

B. alba. *Huds.* 437. *Rellb.* 375. *Rau Syn.* 261.

B. ruderalis. *Salisb. Prodri.* 158.

COMMON every where in hedges and thickets, flowering from May to September.

Root perennial, growing to a very large size, white, and purgative (see Withering). Stems annual, climbing by means of simple tendrils, angular, rough, not much branched, very long. Leaves alternate, on rough stem-stalks, palmate, with five angular lobes, veiny, rough on both sides with small callous points. Stipule none. Flowers in axillary bunches, the males larger, on longer stalks, and on a separate root from the female, contrary to the other species of this genus, which therefore stands in the class *Monocia* of the Linnaean system. Calyx bell-shaped, with five sharp teeth. Corolla longer, with five elliptical obtuse segments, whitish, veined with green. Stamina consisting of three short filaments hairy in their lower part, two of which bear each of them two antheræ, and the third a solitary one, though Mr. Sowerby has observed all of them to bear double antheræ occasionally. The antheræ are all more or less firmly connected at their base, and bear the pollen on their outer edge. The female flowers are a little elevated on a short stalk above the smooth globular germen, and have no rudiments of stamina. The style is divided into three branches, with cloven downy stigmas. Berry red, of one cell, full of fetid juice, enveloping six elliptical spotted seeds.

Most writers have confounded this with the *Bryonia alba* of Linnaeus, called *alba* from the white root, though the berries of that are black. Dillenius, on the authority of Boucer, mentions it as not rare about Cambridge, but Professor Nutt assures us no one else has found it. It is the *deadly* plant, see *Flora Surinaca*.



1877. Published by J. D. Smith & Son



[947]

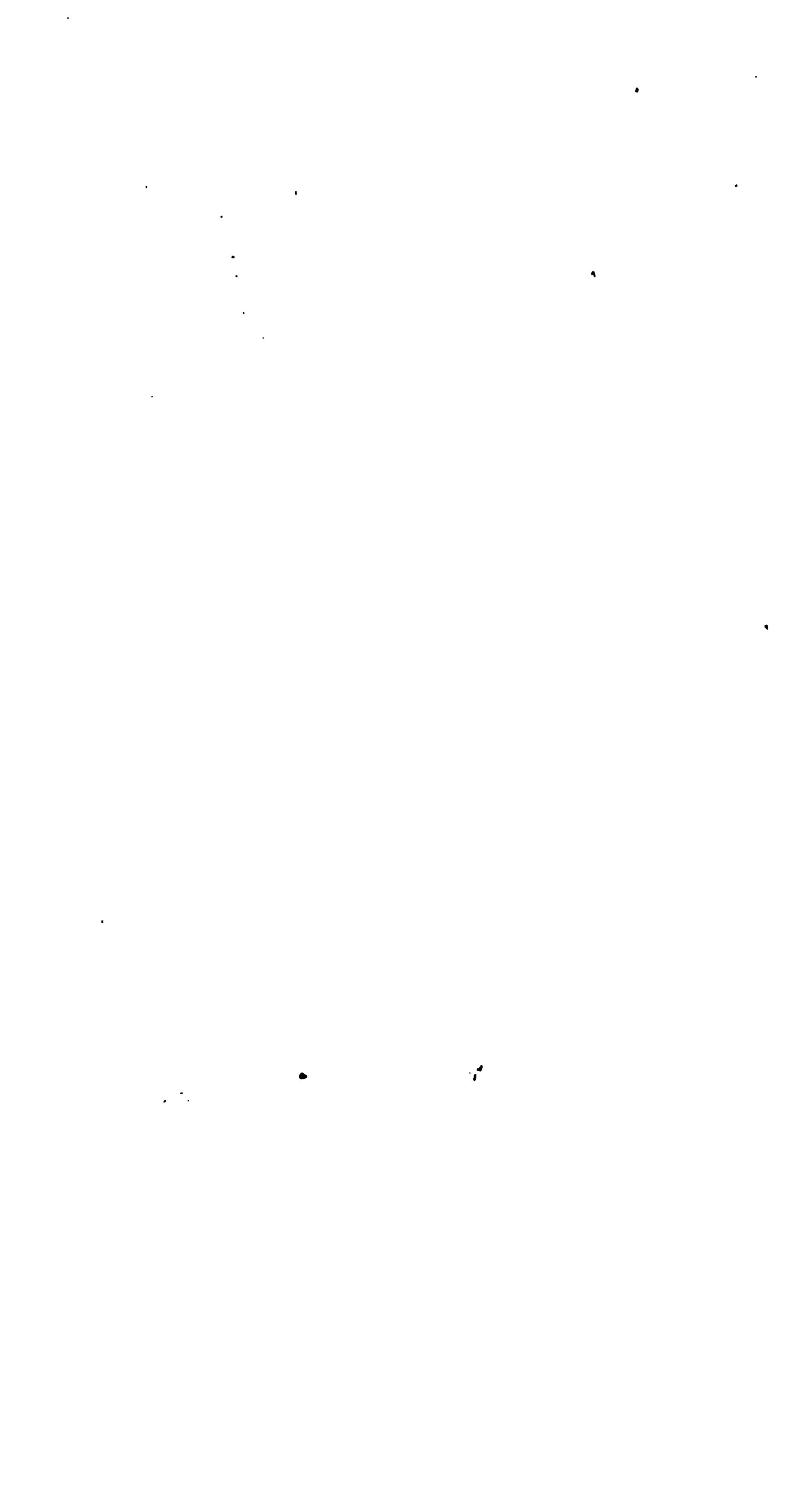
CERATOPHYLLUM demersum.

*Common Hornwort.**MONOECIA Polyandria.***GEN. CHAR.** Male. *Cal.* in many divisions. *Cor.* none.
Stam. 16 to 20.**Female.** *Cal.* in many divisions. *Cor.* none. *Stigmas*
nearly sessile. *Seed* solitary, coated.**SPEC. CHAR.** Fruit armed with three spines.**SYN.** *Ceratophyllum demersum.* *Linn. Sp. Pl.* 1409.
Huds. 419, α . *Witb.* 440. *Hull.* 211. *Rell.* 361.
Sibtb. 168.*Hydroceratophyllum folio aspero, quatuor cornibus
armato.* *Vaill. Mem. de l' Acad. des Sciences (German edition)* 299. *t.* 15. *f.* 1. *Raii Syn.* 135.

THE diligence of our obliging correspondents the Rev. Mr. Holme and Mr. Pitchford, has this season supplied us with the fructification of *Ceratophyllum demersum*, which enables us now to complete the history of that genus: see v. 10. t. 679.

This species is very common in stagnant waters, ditches and fish-ponds, flowering in September. The root is perennial, Herb floating under water, and agreeing in habit with *C. submersum*, except that the leaves appear to be more distinctly





(679)

CERATOPHYLLUM submersum.

Unarmed Hornwort.

MONOECIA Polyandria.

GEN. CHAR. Male. *Cal.* in many divisions. *Cor.* none. *Spat.* 16 to 20.

Female. *Cal.* in many divisions. *Cor.* none. *Spat.* nearly sessile. *Seed* solitary, coated.

SPEC. CHAR. Fruit destitute of spines.

SYN. *Ceratophyllum submersum.* *Linn. Sp. Pl.* 1409.
Nik. 441. *Hall.* 211. *Fl. Dan.* t. 510.

C. demersum L. *Huds.* 419.

Hydroceratophyllum folio laevi, octo cornibus armato.
Faill. Mem. de l'Acad. des Sciences (German edition) 299. t. 15. f. 2. *Dill. in Raff Synt.* 135.

DI LENIUS mentions his finding this plant, with Mr. Manningham, in ditches by the road from Chichester to Selfey island. Our specimen was gathered near Yarmouth by Mr. D. Turner, flowering in September.

Root perennial. Whole plant floating under water, much branched, slender. Lvs. about 8 in. long, finely me-



070



CERATOPHYLLUM submersum.

*Unarmed Hornwort.**MONOECIA Polyandria.*

GEN. CHAR. Male. *Cal.* in many divisions. *Cor.* none. *Stam.* 16 to 20.

Female. *Cal.* in many divisions. *Cor.* none. *Stigma* nearly sessile. *Seed* solitary, coated.

SPEC. CHAR. Fruit destitute of spines.

SYN. *Ceratophyllum submersum.* *Linn. Sp. Pl.* 1409.
Witb. 441. *Hull.* 211. *Fl. Dan.* t. 510.

C. demersum β. *Huds.* 419.

Hydroceratophyllum folio lœvi, octo cornibus armato.
Vaill. Mem. de l' Acad. des Sciences (German edition) 299. t. 15. f. 2. *Dill. in Raii Syn.* 135.

DILLENIUS mentions his finding this plant, with Mr. Manningham, in ditches by the road from Chichester to Selsey island. Our specimen was gathered near Yarmouth by Mr. D. Turner, flowering in September.

Root perennial. Whole plant floating under water, much branched slender. Leaves about 8 in a whorl, forked, two-



679





[43]

MICROPHYLLUM spicatum.

John Muir-Wilson

CHARACTERISTICS

Stems erect, blue, 1.5 m. high, branched. Petals four.

Leaves opposite, elliptic, 1.5 m. long, 1.5 m. wide. Petals
white. Petal out. Five times. Spots four, naked.

Flowers blue flowers in interrupted naked
spikes.

Flowers *Perianthium* *Spicatum*. *Lam. Sp. Pl.* 1409.

*Flor. Fr. et al. Fl. Soc. Am. 1077. Robt.
Lam. 1.*

Flowers white, yellowish. *Lam. Sp. 150.*

Leaves alternate, 1.5 m. long and 1.5 m. wide, flowering
at top and middle. When in summer and winter, standing
and above the surface, appear a very conspicuous. This spe-
cimen was one of the specimens called the *Life of Dogs*, facing
Opposite *Leaves*.

Leaves at top and middle, they are long and slender.
The leaves at top and middle, in their lower part, round and

62.



MYRIOPHYLLUM *verticillatum*,
Verticillate Water-Milfoil.

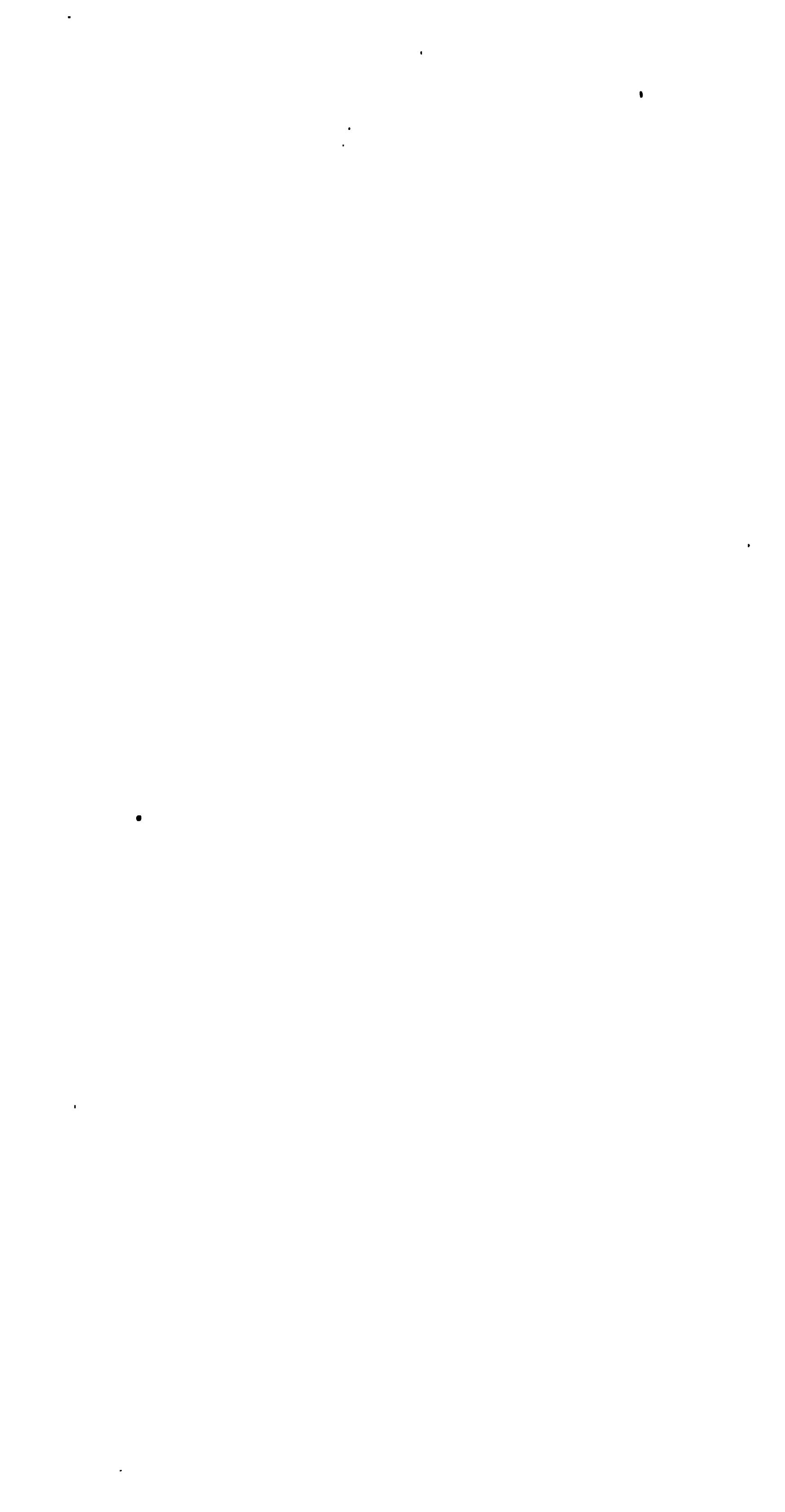
MONOECIA *Polyandria.*

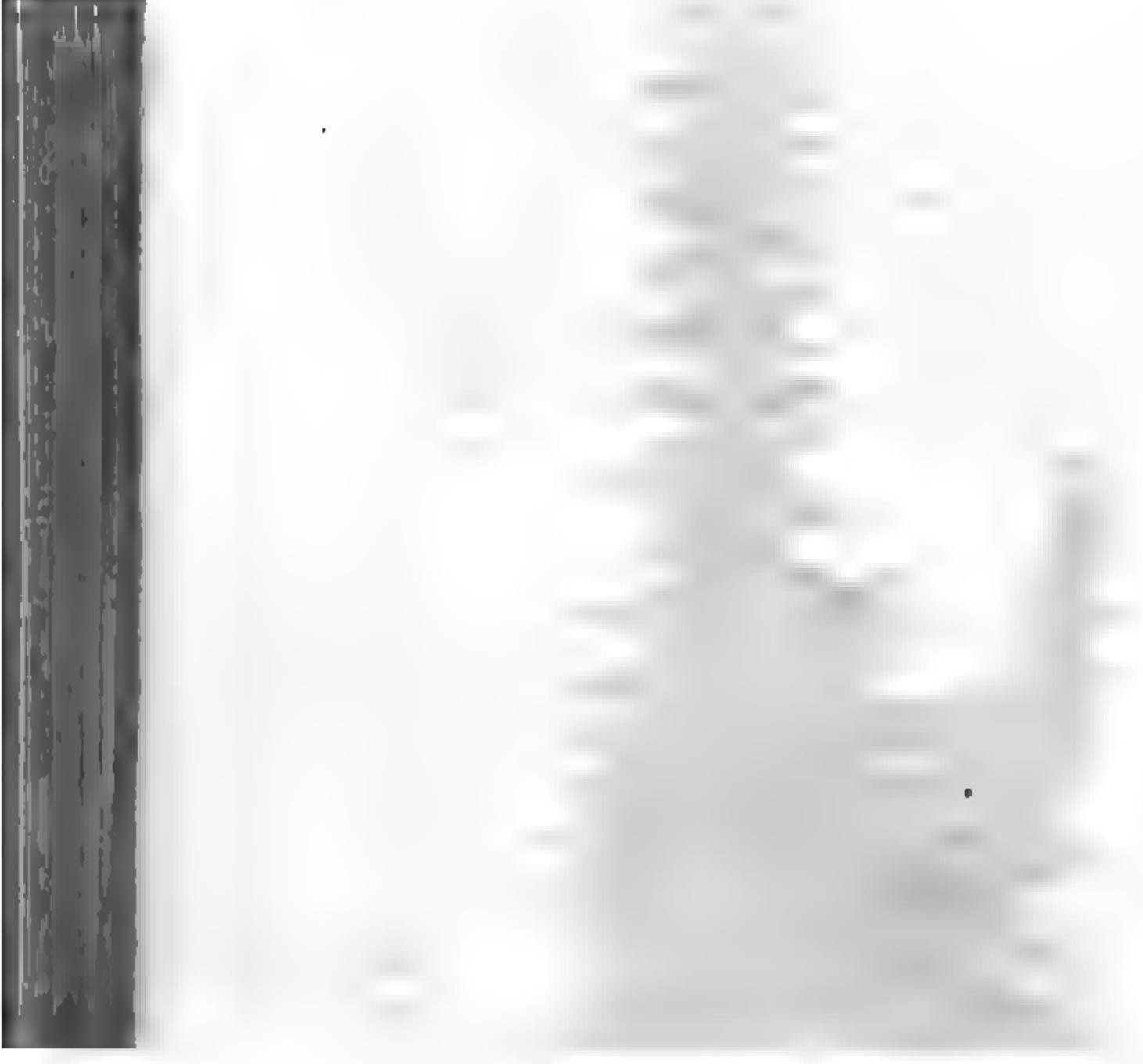
GEN. CHAR. Male. *Cal.* 4-leaved. *Pet.* 4. *Stam.* 8.
Female. *Cal.* 4-leaved. *Pet.* 4. *Pist.* 4. *Style* none.
Seeds 4, naked.

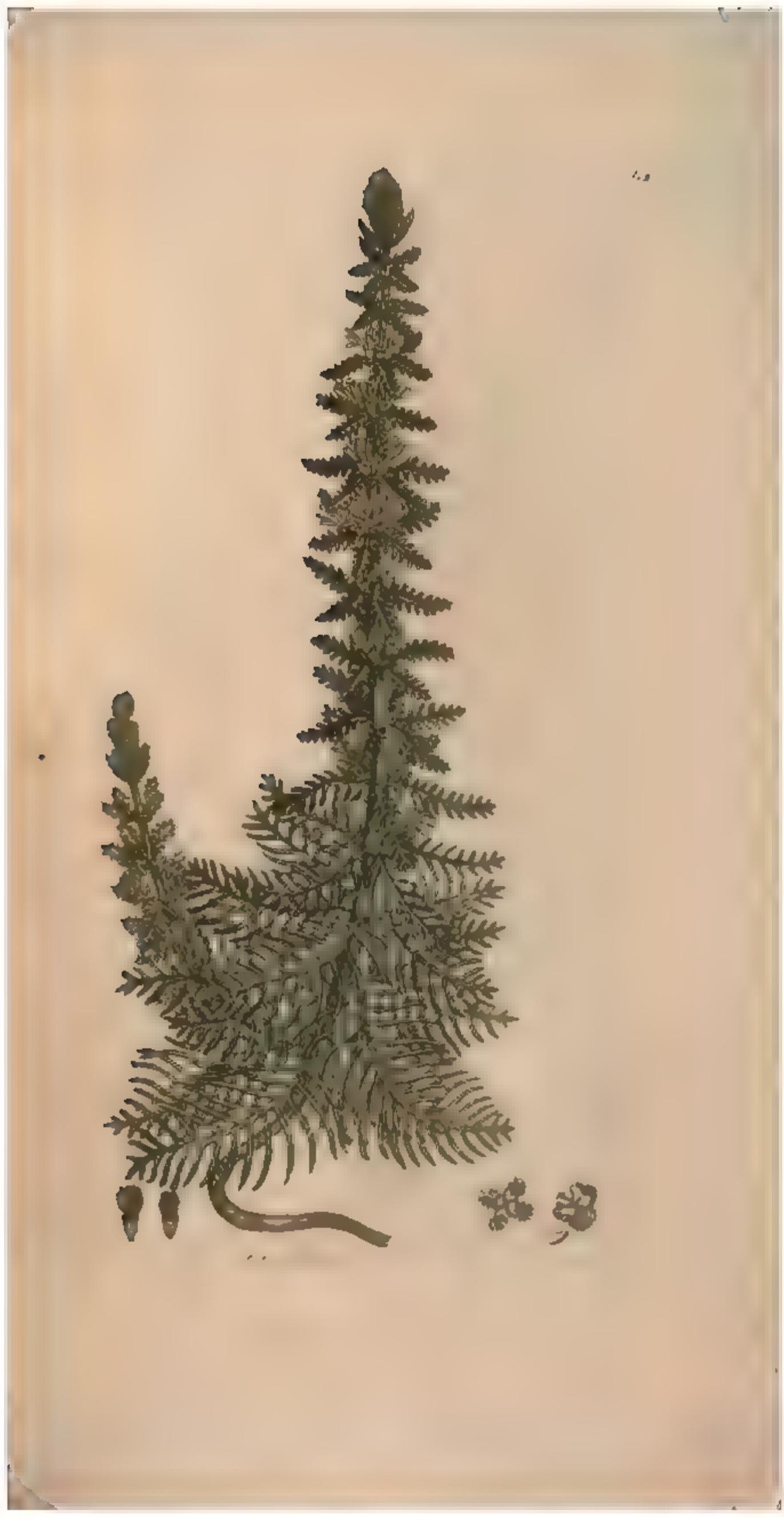
SP. CHAR. All the flowers in axillary whorls.

SYN. *Myriophyllum verticillatum.* *Linn. Sp. Pl.*
1410. *Huds. Fl. An.* 420. *Wub. Bot. Arr.* 1078.
Rell. Cent. 361. *Sibtb. Oxon.* 132.
Pentapterophyllum aquaticum flosculis ad foliorum
nodos. *Raii Syn.* 316.

WE have given the most common Water Milfoil in tab. 83 of this work. That now before us is much more rare. It has been sent from several of the eastern parts of the kingdom. Mr. Cress displayed it in his ponds at Lakeham, and















5.

[298]

ARUM maculatum.

Common-pint. or White Robin.

SYNONYMS Polyphyletic.

Giant Calla. Stems of one leaf, rolled together at the bottom. Spadix cylindrical, naked above, bearing a crown below the middle, and germs at the base. Flowers white.

Wild Calla. Same name. Leaves broad-shaped, on the again club-shaped oblong.

Star Arum maculatum. *Linn. Sp. Pl. 1570. Sm. Fl. Eng. 1754. Flora 595. Willd. 497. Hull. 198. Eng. 1755. Solerl. 177. Afric. 197. Cott. Lond. 1751. 55. Winst. Med. Bot. 2. 25.*

Arum. *Eng. 1754.*

AT the first approach of spring the verdant shining leaves of the plant are soon showing up conspicuously wherever any brushwood covers them from the tread of men or of cattle. In May the first scarlet flowers appear. In autumn, after the flowers and leaves have dropped, a spike of scarlet berries,



[REDACTED]



POTERIUM Sanguisorba.*Common Burnet.**MONOECIA Polyandria.*

GEN. CHAR. Male, *Cal.* 3-leaved. *Cor.* 4-cleft. *Stam.* 30 to 40.

Female, *Cal.* 3-leaved. *Cor.* 4-cleft. *Pist.* 1 or 2.
Nut of 2 cells, clothed with the hardened tube of
the corolla.

SPEC. CHAR. Thorns none. Stem somewhat angular.

SYN. *Poterium Sanguisorba.* *Linn. Sp. Pl.* 1411.

Huds. 421. *Wittb.* 493. *Hull.* 212. *Rehb.* 362.
Sibtb. 168. *Abbot.* 209. *Curt. Lond. fasc.* 2. 1. 64.
Mart. Fl. Rust. t. 69.

Sanguisorba minor. *Raii Syn.* 203.

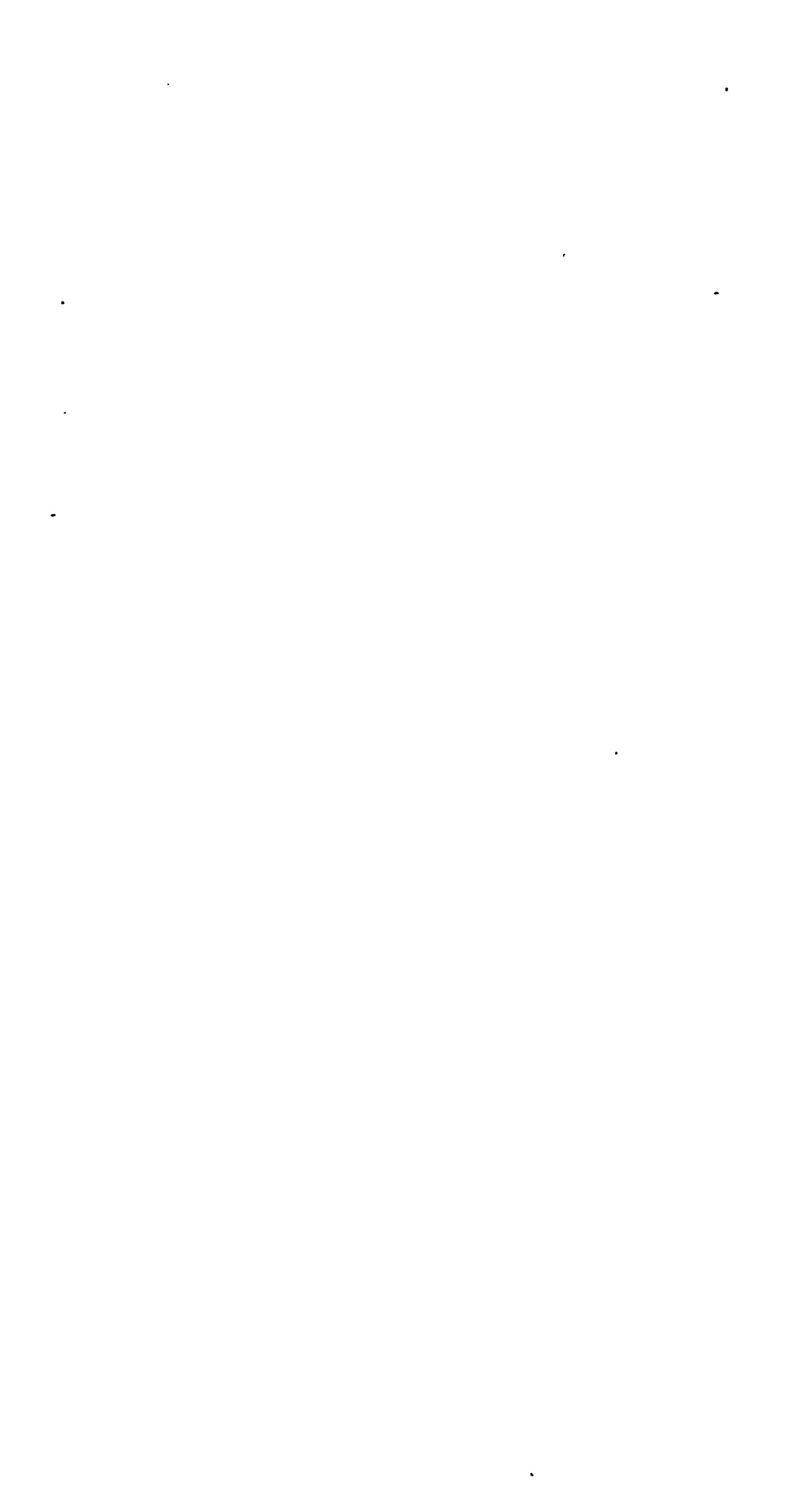
A NATIVE of dry chalk or limestone hills, where it generally grows in great plenty, and flowers in July.

The root is strong, woody and perennial. Stems upright, branched, various in height, more or less angular, leafy, smooth. Leaves pinnated, with round neatly-serrated leaflets, veiny, smooth but not shining, having a glucous hue



Malvastrum ciliatum (L.) Steyermark





[1342]

Q U E R C U S Robur.*Common British Oak.**MONOECIA Polyandria.***GEN. CHAR.** Male, *Cal.* bell-shaped, lobed. *Cor.* none.Stam. 5—10. Female, *Cal.* bell-shaped, entire, rough. *Cor.* none. *Style* 1. *Stigmas* 3. Nut superior, leathery, with 1 seed.**SPEC. CHAR.** Leaves deciduous, oblong, wider towards the extremity: their sinuses rather acute: their angles obtuse. Fruit-stalks elongated.**SYN.** *Quercus Robur.* *Linn. Sp. Pl.* 1414. *Sm. Fl. Brit.* 1026. *Huds.* 421, a. *Reh.* 378. *Sibth.* 133. *Woodr. Med. Bot.* t. 126. *Mart. Rust.* t. 10.*Q. foemina.* *With.* 387.*Q. pedunculata.* *Hull.* 212. *Abbot.* 210.*Q. latifolia.* *Raii Syn.* 440.

If in the foregoing page we have exhibited the most valuable British wood, with respect to the refinements of art, we here

2342



Quercus ilex L. (Spanish Oak)



[1843]

Q U E R C U S sessiliflora.
Sessile-fruited Oak.

MONOECIA *Polyandra.*

GEN. CHAR. Male, *Cal.* bell-shaped, lobed. *Cor.* none. *Stam.* 5—10. Female, *Cal.* bell-shaped, entire, rough. *Cor.* none. *Style* 1. *Stigmas* 3. *Nut* superior, leathery, with 1 seed.

SPEC. CHAR. Leaves on footstalks, deciduous, oblong: their sinuses opposite and rather acute. Fruit sessile.

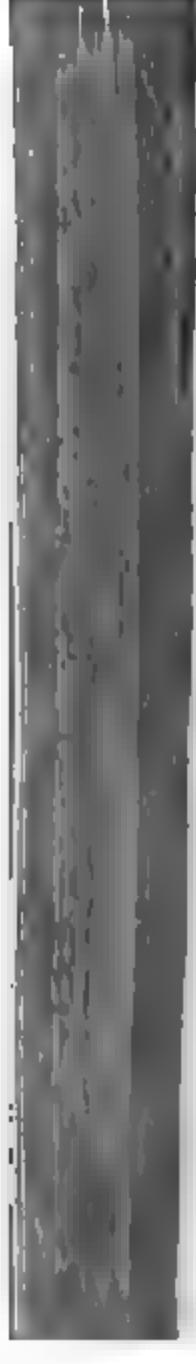
SYN. *Quercus sessiliflora.* *Salist. Prod.* 392. *Sm. Fl. Brit.* 1026. *Galp.* 80.

Q. Robur. *With.* 387. *Hull.* 212. *Abbot.* 210. *Huds.* 421, β . *Mart. Rust.* t. 11, 12.

Q. latifolia mas, quæ brevi pediculo est. *Rai Syn.* 440.

THE Sessile-fruited Oak, fortunately much less common than the true British Oak, *t.* 1342, as its timber is far less strong and durable, is however found in most parts of England. It is known by its leaves being more regularly and oppositely sinuated, which gives the tree a neater and more chestnut-like aspect, with generally longer footstalks; but especially by the female flowers, and consequently the acorns, being sessile. It is said to be somewhat later in flowering, and the leaves are commonly more permanent. Sometimes they are downy beneath, as in our specimens sent by Mr. W. Borrer and Mr. Lyell from Sussex, which variety is called the Durinæt Oak. This abounds in the New Forest, and about Goodwood near Chichester; but however desirable as a variety in home plantations, it is to be rejected from all plantations for valuable purposes, and the true *Q. Robur* should be carefully preferred. Professor Martyn, whose *Flora Rustica* contains a full account of these trees, has only erred in considering the common smooth-leaved state of *Q. sessiliflora* as belonging to the *Robur*, misled, as it seems, by the occasional footstalks of the leaves.





FAGUS Castanea.

*Chestnut-tree.**MONGEOLIA Prjanensis.*

Gyn. Catt. Male. Cal. bell-shaped, 5-cleft. Cor. none. Nut. 3 to 8.

Female. Cal. 5-cleft. Cor. none. Styles 2 or 3, three-cleft. Nut. 2 or 3, invested with the leathery prickly calyx.

Syst. Catt. Leaves lanceolate, sharply serrated, smooth beneath. Fuckles of the fruit compound and entangled.

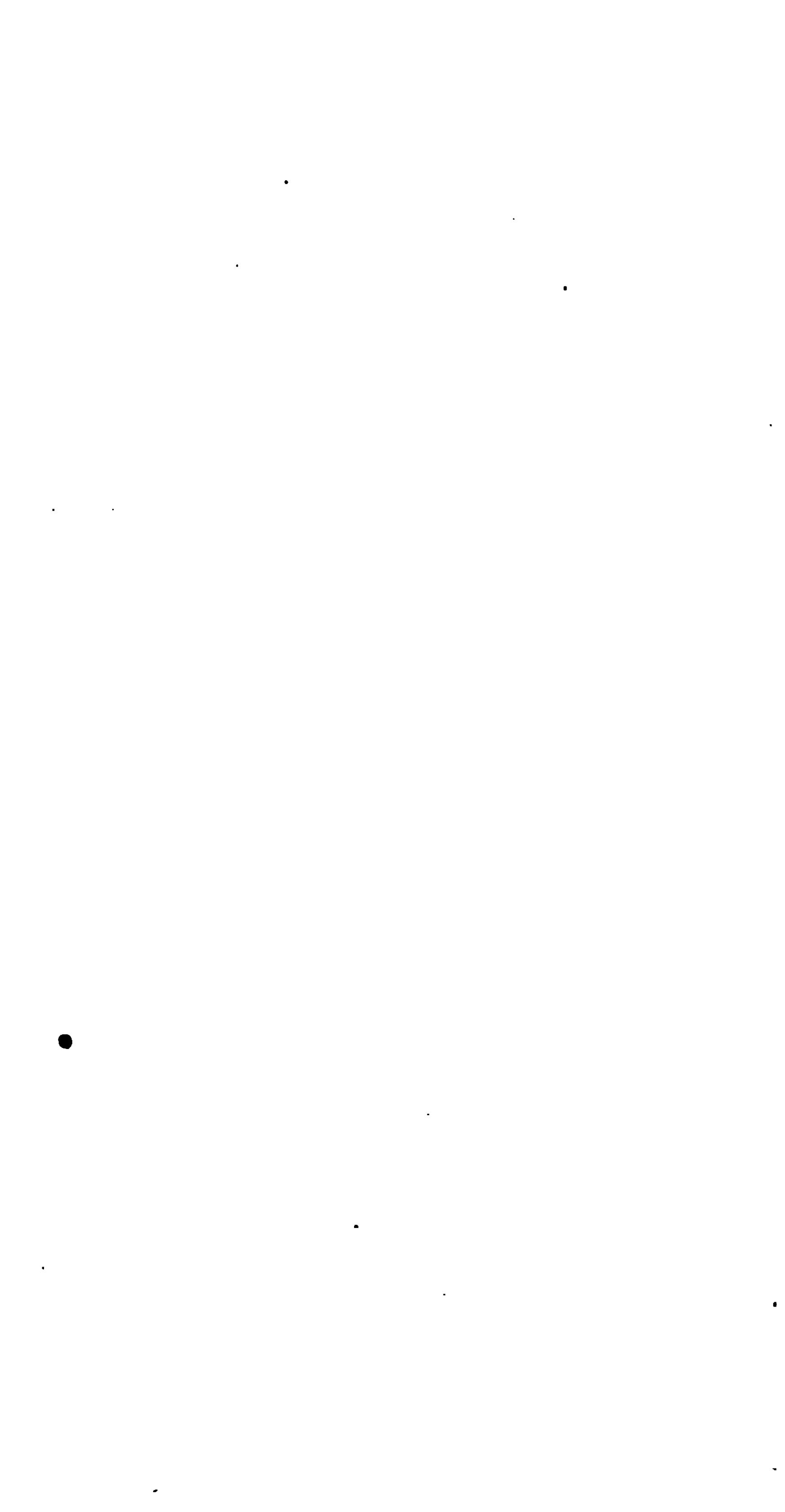
Syst. Fagis Castanea. Linn. Sp. Pl. 1416. Huds. 422. Thunb. 2:3. Willd. 2:3. Ait. 211.

Calcareous Soil 440.

THE Chestnut is the most Hardy of all our native trees, it is a common tree of the south and western parts of the island; it appears to be also the most long-lived; for a Chestnut known to have been a boundary tree in the time of King John still continues to bear fruit at Tortworth, Gloucestershire, and we have been favoured with its blossoms.







[1846]

F A G U S sylvatica.
Beech-tree.

MONOECIA Polyandria.

GEN. CHAR. Male, *Cal.* bell-shaped, 5-cleft. *Cor.* none. *Stam.* 5—12. Female, *Cal.* 4-cleft. *Cor.* none. *Styles* 2 or 3, 3-cleft. *Nuts* 2 or 3, invested with the leathery prickly calyx.

SPEC. CHAR. Leaves ovate, obsoletely serrated. Prickles of the fruit simple.

SYN. *Fagus sylvatica.* *Linn. Sp. Pl.* 1416. *Syn. Fl. Brit.* 1028. *Huds.* 422. *With.* 444. *Hull.* 213. *Sibth.* 152. *Abbot.* 210.

Fagus. *Raii Syn.* 439.

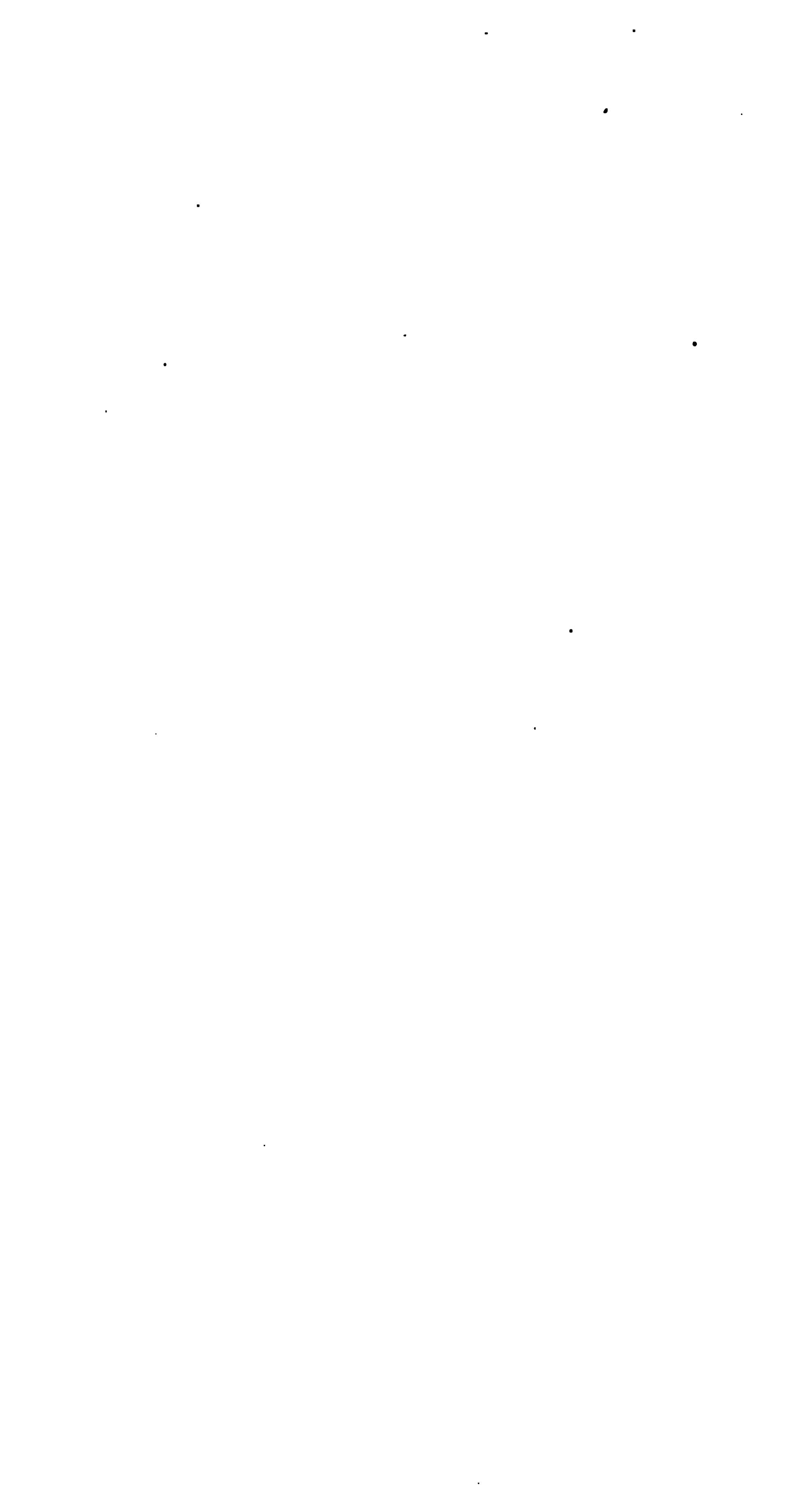
THIS handsome tree prefers a rich calcareous soil, forming in many parts of England very fine luxuriant woods, peculiarly dry and pleasant to walk in, and usually affording the botanist several interesting plants under their shade, as the *Monotropa*, *Pyrrola*, and some rare *Orchidææ*. Grasses do not thrive beneath this tree. The wood is hard, but neither tough, nor lasting in the open air. The Beech makes excellent cut hedges for shelter, as the old leaves remain, though faded, through winter. It blossoms in April or May. The nuts, called Beech Mast, are eaten by hogs. Hill the poet had a project for extracting oil from them, which did not answer.



18.16



Published by the Author, London



[2032]

CARPINUS Betulus.
Horn-beam.

MORACEAE Polyandra.

Gen. Char. Male, Cal. the scale of a catkin, roundish.
Stam. 5—20. Female, Cal. toothed. Styles 2.
Nuc. of 1 cell, closely invested with the angular
calyx.

Spec. Char. Bracts of the fruit oblong, serrated,
etc., with two basal lobes.

Spec. Carpini Betulus. Linn. Sp. Pl. 1416. Sm. Pl.
B. & S. 1029. Hook. 422. Willd. 442. Hull. 213.
Bak. 573.

Observe that small, fruits in umbellæ foliaceæ. Rau
Sp. 451.

THE Hornbeam thrives on a rather meagre clayey damp soil,
such as Epping forest and Finchley common, where it abounds,
flowering in April. Linnaeus justly observes that the wood
is white, very tough, and harder than hawthorn. The tree
is of a humble size, densely branched, and bears cutting,
but has often value in the garden hedges in the north of

2032



for *Malus pumila* Schneid.

[725]

CORYLUS avellana.

Espèce.

MILLEPOISIER.

Sex. CAUL. Male Cat. the size of a catkin, three-
lobed. Cr. zone. Size 3.

Female Cat. about the Cr. zone. Style 1.
Fls. more imbr., w: cat, clothed with the
feeling serratus cat.

Sex. CAL. Styrax ovata, dicot. Leaves roundish,
near-pointed pointed. Young branches hairy.

Sex. Corylus avellana. Lin. Sp. Pl. 1417. Hull.
et al. Fl. Brit. Edin. 1813. Bot. 364. Sibt.
et al. Fl. 1811.

C. integrifolia. L. Sp. Pl. 439.

THE common Hazel-nut, so frequent in hedges and copses,
is one of the earliest of our living blossoms. Its male catkins,
which bear number in the preceding summer, arrive at full





[2460]

PINUS sylvestris.*Scotch Fir.**MONOECIUS Monodelphus.*

Gen. Char. Male, C.c. the scale of a catkin, peltate.
Cat. none. *Aletin* sessile upon the scale.
Female. C.c. the scale of a catkin, two-flowered.
Cat. none. Not winged, of one cell.

Spec. Char. Leaves rigid, in pairs. Young cones
 stalked, recurved. Crest of the anthers very
 small.

SPEC. *Pinus sylvestris.* Linn. Sp. Pl. 1418. Sm. Pl.
 Brit. 1031. Huds. 423, Willd. 615. Hull. ed. 2.
 252. Lightf. 587. Ger. em. 1356. Wode.
 Med. Bot. t. 207. Lamb. Pin. 1. t. 1.

*P. sylvestris, fulvis brevibus glaucis, conis parvis
 albus.* Ron. Sgn. 442.

THIS well-known tree, of which a wild specimen was brought us by Mr. Borrer, grows plentifully throughout the highlands of Scotland, either scattered or in vast natural forests, and is the only native *Pinus* of Britain. It flowers in May, but the cones are two years in ripening. The uses of the wood, and of the tar, pitch, and turpentine yielded by this tree, in common with most others of its genus, are familiar to every body. Its hardness renders it fit to brave the cold winds of many bleak situations, till more beautiful and valuable plantations can spring up under its shelter; but hence fir woods, in themselves, are associated with ideas of dreariness, as well as of sandy sterility of soil; nor is their green, though perpetual, of an agreeable or cheerful kind, like the stately Spruce of the "Norwegian hills," and alpine forests of Switzerland and Savoy.

The Scotch Fir lives to the age of 400 years or more, and is lofty and straight in its growth. The leaves are linear, acute, in pairs from membranous sheaths. Male catkins yellow, in dense spikes, which afterwards become branches. Pollen copious. Cones ovate, tessellated, tubercled, but not spinous.

2.00



graphited by J. C. Johnson

12

